Inaugural Address,

Delivered on the occasion of the Opening of the Queen's Faculty of Medicine in connexion with the Mason College, Birmingham, and the Distribution of Prizes, on Sept. 30th,

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THE UNION OF THE COLLEGES, TYPIFYING THE RELATION BETWEEN MEDICINE AND SCIENCE.

GENTLEMEN,—We are met to-day for two chief purposes. *First*, to celebrate the union—the nuptials, we might say—of two great institutions. The older of these was commenced in 1825 with a course of lectures by Mr. Sands Cox, a well-known figure in surgery in my early time, who had the felicity, as it was also my own privilege, to teach human anatomy in conjunction with physiology and surgery, and to impart to it the interest resulting from that union. It was chartered as "Queen's College" by Her Majesty in 1845, and has grown into a well-equipped School of Medicine, which is now about to enter upon a fresh, hopeful career in new and extensive buildings, fitted up with due regard to the necessities of modern medical education and supplemented by the clinical material which the hospitals of a great manufacturing centre afford. The other institution has the peculiar interest of being the outcome of the intense appreciation of science by one who from the most humble beginnings and the most humble education had raised himself by practical genius and business quality to be one of the foremost and wealthiest men in this great and active town, and who rejoiced in the hope that he would hereby leave behind him "an intelligent, earnest, industrious and truth-loving and truth-seeking progeny for generations to come." Could Sir Josiah Mason and Mr. Sands Cox be with us to-day how heartily would they shake hands in the participation of this ceremony, in the realisation of much that they longed for, and in the prospect of much more good results in time to come. The union of medicine and science which is thus typified is one that is essential to the fulness of both and one that has existed throughout their history. The only persons of scientific pretensions in the Homeric period appear to have been physicians. In the great school of Alexandria and in every subsequent great school of learning and science—in Italy, in France, in Germany and in Britain, wherein we still include Ireland, and long hope to do so—medicine has held a prominent place. The physicians—to wit, Linacre and Caius—were the most learned men of their time; and though many still rank high in learning and science the range of literature and the scope of knowledge are now so great that no man can attain the same eminence in many subjects as was reached by those masters in bygone centuries. It thrills me a little when I hear medicine designated as an art. True it is an art; but it is a science also. It is a compound of both; for it is both science and the practical application of science, and the practical application of its science advances *pari passu* with the science itself. Its subject is the human body, in which other sciences, physical, physiological and psychological, culminate, and in the aberrations—the morbid phenomena—of which the most complex and difficult of all scientific problems are found. So difficult are they that they often set scientific thought at defiance and cause charlatanry to step in and cut their Gordian knots. Hence charlatanry has ever been an attendant upon medicine, usurping the field most where science is weakest, and waiting for its expulsion in the time when the further developments of science shall have made deeper search into the mysteries of medicine. Where, it may well be asked, can physics and chemistry find higher and worthier scope than in the anatomical mechanism and in the physiological and pathological processes of man? and how can medicine make much advance except by the aid of these her true handmaids? Never did medicine turn to them with more earnestness and more longingly than at this time, when she is prying closely into the processes of life and searching anxiously into those changes which constitute disease and into the recondite sources of them, when a new and fertile field of research has been opened up and patient, careful investigation has given fresh hope of combating the maladies which devastate our people. Sad would it be for both if medicine and science were ever separated, and great reason have we to hope that the aspirations of your founders will be realised by the mutually inspiring work of their institutions; and we may confidently look forward to ever increasingly beneficial results from the proceedings of this day.

It is interesting to note, in connexion with the events of the day, that Sir Thomas Gresham, the prince merchant and great financier of Elizabeth's time—who appreciated the value of education, having been placed by his father, who was also a great merchant and financier, at Caius College in Cambridge, and who, like Sir Josiah Mason, founded a College of Science which still exists in the city of London—left as an injunction that "the lectures were to teach things interesting to city men, but they must go to the bottom of them." He thereby indicated his consciousness that interest and benefit lay not simply in the things themselves, but also, and still more, in the mental exercise involved in the search into their causes. Possibly he further indicated his consciousness that that source of interest never could be exhausted, forasmuch as the bottom of things never could be reached, that however deep in future ages the human search might go, a deeper still would remain to stimulate research and to inspire interest. "We speak the wisdom of God in a mystery" are the words of one of the most eloquent and earnest as well as sincere of men. How true is the remark as applied to science, and indeed to all knowledge—*σοφία ἐν μυστερίῳ*—true now as much as when he wrote, in spite of all the, to us, enormous advance which has taken place in the intervening eighteen centuries and a half; and in spite of our pride of this nineteenth century the source of life and all force is still in what seems to be an eternal, an Εἰς τα αἰδωνα, mystery. The great questions "*Whence* comest thou?" and "*Whither* goest thou?" are still unanswered and unanswerable by human ken. They need evidently a higher than human knowledge to tell; and those who are most advanced, and have the highest and clearest range of view, are most ready to admit this.

Our *second* function on the present occasion is to give honour to whom honour is due, to recognise those who by good work have won their way to the front in student life, and to urge them to continuance in well-doing, and to wish them the future happiness which it will merit.

THE GREEK IDEAL OF EDUCATION APPLICABLE TO MEDICAL EDUCATION.

No nation, I suppose, gave greater heed to education than the Greeks of old, and none with greater success, as is proved by their unrivalled philosophical disputations, their unrivalled dramatic productions, their unrivalled works of art and their unrivalled military prowess. Their ideal was that a man should be a "speaker of words and a doer of deeds," which implies that he should be also a thinker of thoughts; for good thinking lies at the root of good speaking and good doing. Their aim in education was to make a man eloquent and persuasive in council and brave and resolute on the field of battle, having a good soul and a strong body—as the Romans also expressed it, "*mens sana in corpore sano*"—all the powers developed in due proportion by such mental and physical training as best leads to goodness of soul and strength of body. The consummation of the ideal was that thought should be free and action free by making both rational and so attaining to the realisation of the glorious sentiment "the Truth shall make you free"; and the prize aspired to was the crown of laurel and the respect of fellow citizens. The ideal was a high one, as the ideal of life and duty should ever be. It is an ideal well suited to the life of medicine, for to no man in a greater degree than to the medical man is the combination of goodness of soul and strength of body more requisite; and to no man is the crowning addition of goodness of heart more important. Upon him it devolves to bring hidden things to light, to step cautiously from the old road upon new ways, to weigh probabilities—wherein, I suppose, consists what we call common sense—and with severe bodily strain, by night and by day, promptly and energetically, yet with gentleness and kindness, to carry out the practical application of his knowledge to the relief of his fellow men. Upon no man, in short, is there greater demand for varied qualities of mind and body. To attain them all in any high degree is impossible, but we must not thereby be dispirited, for happily there is no line of life in which good quality of some kind is more appreciated and more telling. Energy and boldness,

quietude and modesty, keenness and inventiveness, patience and perseverance, each and all have influence in the work of acquiring professional knowledge and in gauging and influencing the bodily and mental constitution of the sick.

THE WORKING LIFE A HAPPY LIFE.

"Man," it has been said, "is born to trouble as the sparks fly upward." Happily there is a hereditary antidote to this inheritance, for it may be as truly said that man is born to work, and work is one of the great sources of his happiness. The work-a-day life is the happy life. Many of you have already experienced this, and all of you may be congratulated on the prospect of more fully realising it in the working life that is before you. Many of you, I say, have already experienced this, for those of you, at any rate, who have won the laurels know the pleasure of work. Everyone has pleasure in work when he takes to it with earnestness. Pleasure in work is therefore a measure of earnestness in it, and the better the work the greater the pleasure. You gentlemen who have thus far succeeded therefore had pleasure proportionate to your earnestness in the good work you have had to do. All power brings with it its measure of enjoyment, and to man is given, in addition to the animal power and the enjoyment of the body the higher and greater power and enjoyment of mind and thought. The former naturally preponderates in early life, the latter at a later period; but both, as the Greeks felt, are necessary to make up the complement of the perfect man. The young man should rejoice, not only in the growing strength and activity of the body, but also in the increasing vigour and power of his mental faculties and in the means by which both are promoted. Pleasure, therefore, in the time of student life—bodily and mental pleasure—is by all means to be compassed, and I take it for granted that you have experienced and do experience it, and the measure of it enjoyed now is the best guarantee for it in time to come.

EXAMINATIONS AND THEIR RELATION TO TEACHING: THEIR DEFECTS.

The examination prospect, I grant, is not always a pleasant one, and the less you look at it the better. The tendency of examinations to cast a gloom over, and to detract from, enjoyment in work is their greatest evil—an evil which much increases with the increased multiplicity of them. It was at its minimum in my day, when a single hour of oral searching was the only trial to which we were subjected at the great portal in Lincoln's-inn-fields, and as the result of it we were sent forth armed, as it was judged, *cap-à-pied*, to combat the maladies which attack the human frame and to wield the scalpel, that weapon more formidable than the sword, upon those who entrusted themselves to us. The threatening cloud, therefore, no larger than a man's hand, cast little shadow upon us. It has now spread over the horizon and almost threatens to deluge the scene and drown the joyousness of study. Well, gentlemen, the only resource is to gird up your loins and run, like the prophet, boldly before it. Examinations are a terror to idle men and should be that only. Keep steadily to your work, and the less you think about examinations the better will you pass them. They should be merely a stimulus and a guide to the diligent, the direction posts along the way telling him what paths he had better take as the best and surest road to the acquisition of that knowledge which will most fit him for the duties he has to perform. It is this feeling which should influence both the examiner and the examinee, both the teacher and the tester of that which is taught. There should be no conflict between examination and teaching. They should coöperate harmoniously in promoting the improvement of mental training and the acquisition of sound knowledge. I do not think this is sufficiently appreciated by teachers, examiners and students at the present time; and I am often surprised to hear the sentiment expressed in an aphorismal and somewhat sententious manner that "teaching should guide examination and not examination guide teaching." It is becoming rather a cant phrase, and I often wonder whether those who utter it have really thought out the purport of what they say. The real fact is that examining and teaching are, and must be, supplementary to one another. The examiners and the teachers are, or should be, guides and checks and adjuncts to one another. They should combine to indicate the best subjects and the best methods. Every teacher is improved as a teacher by examining students other than those he has taught, as well as by examining his own students, and every examiner is improved as an examiner by regarding the students from the point of view of a teacher. I have for many years been an examiner as well as a teacher, and I do not think I ever learnt more as a teacher than by examining during a period of ten years at the College of Surgeons, where I became intimately familiar with the thoughts and methods of other teachers, realised my own failings and theirs, and appreciated more fully the qualities and the needs of the various classes of students. I would say that for the completion of the mental equipment of a teacher it is desirable that he should have the experience derived from being an examiner of students who have been taught by others. I highly estimate the value, both to the student and to the teacher, of class examinations which I have been in the habit of conducting almost daily for nearly fifty years, and I also highly estimate the value, both to the student and to the teacher, of that wider area of examination in which teachers are confronted with those who are not their pupils, whereby the range of view and thought of both teacher and pupil are widened and over-assurance in individual method and idea is checked. Each question which an examiner puts has—indeed must have—an educational bearing and should be looked upon in that light by him who sets it; and the right-minded student will not regard his examiner from a hostile point as one who is actuated by the exclusive desire to probe the depths of his ignorance. Be it remembered that it is the part of the examiner to ascertain ignorance as well as knowledge, that it is hard to do one without the other, that if the student does not know the position of the femoral artery, or the symptoms of pneumonia, or the treatment of iritis, it is the duty of the examiner to find out such voids and others of more or less serious import.

TOO MANY SUBJECTS AND TOO MUCH DETAIL.

The great defect in examination consists, I think, in the difficulty of estimating power in the application of knowledge. It is comparatively easy to ascertain whether there is or is not the knowledge of a fact; but it is by no means equally easy to ascertain whether or not there is the knowledge of the bearings of the fact—that is, its relation to other facts; whether, in short, there is the power of thinking about the facts known, and the power consequently of rendering the knowledge available. This difficulty of holding the balance between knowledge and thought is, and I fear must be, one of the chief defects in examinations, however conducted, and is the cause of some of the dissatisfaction which we hear now and then expressed with regard to the results in particular instances. One can quickly and easily ascertain whether a candidate knows the symptoms of a dislocation of the hip and the method to be employed for its reduction; but it is a longer and less easy process to ascertain whether he understands the *rationale* of the symptoms and of the treatment required.

FACTS AND THOUGHTS.

Herein lies the difference between what is called "cram" and intelligent knowledge. The one is just an acquaintance with facts, the other implies an inquiry into and acquaintance with their causes, their beings, use and ends—an acquaintance, that is, with principles. The two should go together. In this matter-of-fact age, when practical knowledge is so much in demand, the one commonly dominates over the other; and the tendency in teachers is to crowd the student's mind with copious, too often ill-digested, facts, and in examiners to estimate the amount held and producible at a given time rather than the ability to use it. This is attributable in no small degree to the number of subjects required, and still more to the increasing details in each; and it is to be corrected only by paying more attention to principles and less to details: in the subjects accessory to medicine—especially biology, physics and chemistry—to give and require a good grounding in principles, with so much detail only as serves to illustrate the principles. The same remark applies to some extent to physiology and materia medica. The need of this limitation of detail grows as the several subjects grow, and as the teaching and examining in them fall more into the hands of those who are specially instructed in them and highly estimate them; and whenever I read over syllabuses of study and examination papers I am impressed with the importance of narrowing the range of detail required. This feeling grows with me more and more; and I feel with regard to certain subjects that they had better be left out of the programme altogether than that the student should be overladen and wearied and his spirit broken by the multitude of facts and details that are required to be got up. The work of pro-

fessional study, above all, should be happy work, and the period spent in it should especially be a cheerful, happy period. The work is then most likely to be well done without damage to body or mind and the results well remembered; and there can scarcely be a greater bar to educational progress than that which causes a distaste for study, and which, by overloading, makes work burdensome and painful to bear, and turns into dislike that love of knowledge which is a natural feature, an inborn and most blessed quality of the human mind—that, indeed, to which all progress is mainly due. All facts have a halo of interest about them which gives them their attractive glow, without which they are scarcely worthy of a place in the human thought. Facts may be regarded as pegs whereon thoughts may be hung, and thoughts are the rivets whereby the pegs are fastened. I do not wish you to despise facts. Without them there can be no thoughts, and those who have the clearest knowledge of facts are usually the persons who have the greatest power of thinking and reasoning upon them. This must not be forgotten, for facts constitute the great stronghold of medicine; the marking of them is the basis of experience, and the best and keenest observer of facts, who is usually also the best holder and combiner of them, is the best practitioner of medicine. Hence the cultivation of the good and acute observation of facts is, or should be, one of the great aims in medical education. It is indeed to the combination of the two great qualities, observation and reflection that man owes his pre-eminence in creation; it is to the amount of good balance of these two that one man owes his superiority over others. By this the great masters in our profession, all along the line of its history, from Hippocrates to those who now hold sway, acquired and hold their places. By this you must hope to win, and remember it is much under your own control.

THE IMPORTANCE OF ATTENTION.

Both observation and reflection imply and are much dependent upon attention. It may be called the cardinal talent, without which little can be done, whatever other qualities may be present. The attentive or intent worker is the good worker, whether in a manual or a mental sphere. Slovenliness in either results from want of attention. The attentive man is talented and the talented man is attentive. The cultivation and promotion of this faculty should be the great efforts of education. This indeed is the necessary effect of good education, for no good learning can be done without it. It is the soul of accuracy; it is the soul of memory. If a man cannot remember, you may be certain that he cannot attend. It is the soul of good thought and ripe judgment. Cast your eye round the dissecting room, you soon perceive who are the real learners of anatomy. You judge by their intentness, uninfluenced by slight surrounding abstractions. A glance at the dissections enables you to judge by the neatness or slovenliness—i.e., of the greater or less attention that has been given to the manipulatory process. A few questions tell you whether there is real attention and thought upon the work which is being done, whether the student is a mere manipulator or whether he knows what he is about. A few questions upon the part dissected three or four days ago gives still more valuable information, forasmuch as you then elicit information as to the enduring value of the attention—that is, of the impress which attention has made. A student reads in the ward a case which he has just taken. You judge of his attention to the case by the account he gives of the patient's appearance, tongue, pulse &c., and by his description of the malady, and you form an estimate of his thoughtful attention from the manner in which he infers the nature of the case by the collection of the symptoms. Question him upon the case a few days afterwards without his note-book and you ascertain to what extent his memory was impressed, and you judge that the recollection of the case is proportionate to the attention bestowed in taking and thinking upon it. You learn, in short, what real good the case-taking did him. How far better, as a process of mental training in observation and thought, is one case well—i.e., carefully—seen and taken as compared with many cases carelessly observed, the results in knowledge being proportionate not so much to the opportunities of seeing many cases as to the attention bestowed upon a few. It is not the walking round a hospital that gives large, rather I should say deep, knowledge. The test of this will be afforded by a few questions at the conclusion of the visits, such questioning being, I apprehend, the very best kind of clinical lecture that can be given. Unfortunately, it will be found that the knowledge acquired is often in an inverse ratio to the number of cases which have been seen. Let a man observe carefully the cases in the Birmingham hospitals, let him note well the questions and remarks of the able and experienced medical officers in examining the patients, for each question has its import, and he will have ample field for the acquisition of medical knowledge. Let the student digest the food thus supplied him and he need have no sighing for pastures new.

SELF-EXAMINATION AND INDEPENDENT THOUGHT.

Finally, gentlemen, let me exhort you to cultivate the habit of examining yourselves. At the conclusion of each hospital visit consider what you have seen and learnt and thus impress the lessons on your memory. Hurry not from one thing to another. In this, as in so many other things, the more haste the less speed. At the same time do not dawdle. Be intent, but be deliberate. By questioning yourselves you will be your own best teachers. Rely not so much on others as on yourselves. By cultivating self-reliance in study you will best promote self-reliance in your future vocation. We hear much at the present time of German universities, of German teachers and German students. We acknowledge their superiority in some respects, more especially in the opportunities for, and the devotion to, research, and we would, if our restrictive laws did not hinder, imitate them in this; but we wish you to hold by the freedom and independence of thought and the energy and activity of Englishmen. We would not that you should be dragged at the chariot-wheels of any heroes, for that implies deadness or weakness, but rather that you should stand erect and march on by your own force with the firm, straight, dignified step that indicates strength of mind, determination of purpose and unselfish nobility of character.

A CASE OF
CEREBELLAR ABSCESS, SECONDARY TO EAR DISEASE, TREATED BY TREPHINING AND DRAINAGE OF ABSCESS; DEATH.

BY BRIGADE-SURGEON LIEUT.-COL. C. E. HARRISON, M.B. LOND., F.R.C.S. ENG.,
GRENADIER GUARDS.

PRIVATE C. M——, 4th Dragoon Guards, was admitted to the Guards' Hospital, Rochester-row, on the afternoon of July 22nd, 1892, with the following history. Two years prior to the present illness the patient had been the subject of purulent discharge from the left ear, which is stated to have subsequently ceased until he was laid up with scarlet fever at Aldershot in February last, when it recurred. The present illness commenced during a period of six weeks' furlough, subsequently to the attack of scarlet fever which he was spending at his mother's residence at Fulham. On or about May 29th, two days prior to the expiration of his furlough, he was seized with acute pain in the left ear and head, accompanied by vomiting. There were no marked rigors at this time, but there was some diarrhœa, which, however, did not last long. The mother states that the inability to retain food lasted fourteen days and then ceased, but recurred for three days recently. Medical treatment was obtained and his furlough extended. He improved sufficiently to be able to sit up for a short time a fortnight before the date of his admission, but on the same day a relapse occurred, accompanied by severe headache, chilliness, but no vomiting. He lost flesh rapidly. There had been delirium at times and constipation had been present. On admission his condition was as follows: Body much wasted, abdomen very retracted, skin pale, surface of body and limbs very sensitive to pressure, pupils equal and sluggish, either dilated or moderately contracted. There was no marked paralysis in the limbs, face or ocular muscles. There were and had been no convulsions. He was partly conscious and able to answer questions, but groaning loudly at times as if in severe pain. Speech was not markedly slow or cerebration particularly sluggish. He was inclined to ramble in his talk. The tongue was furred and the breath rather offensive. There was thick, fetid, purulent discharge from the left ear, which was said to have been profuse. A polypus was found to exist, and this was snared

with a wire polypus snare on the night of his admission and the stump subsequently touched with a saturated solution of chromic acid. It was difficult to obtain a satisfactory view of the optic discs; but the vessels of the fundus were seen to be well defined, and the fundus did not appear "woolly." There was no marked tenderness and no redness or œdema over the mastoid process, but he was inclined to complain of tenderness on pressure at any spot, whether on the head, trunk or limbs. Any evidence therefore to be obtained by percussion over the skull was considered to be unreliable. There was no pain or swelling down the left side of the neck. The right ear was healthy and the membrana tympani intact. Temperature, 98·2°; pulse, 56. From the history of the case and the past and present symptoms I formed the opinion that an intra-cranial abscess almost certainly existed; but whether the pus was located in the cerebrum or in the cerebellum the symptoms and physical signs left doubtful. It was hoped that some improvement would result from the removal of the polypus, which probably had obstructed the discharge of pus. It was thought advisable to carefully watch the case, unless any unfavourable symptom occurred, until Monday, July 25th, and, if no improvement had resulted, to trephine over the temporo-sphenoidal lobe and explore for pus. If no pus could be found in this situation it was determined to trephine the occipital bone and explore the cerebellum. On the 23rd he had passed a bad night and had been noisy. There was very little discharge from the ear. Evening temperature 98·4°, which fell at a later hour to 97°. Pulse, 60 in the morning, 56 at night.

On July 24th the morning temperature was 98·4°, falling before midday to 97·7°; pulse 64. In the afternoon his condition had changed for the worse, the pulse having increased in frequency to 122, and the symptoms of coma having also increased. Temperature 97°. It was thought necessary therefore to operate without delay. No anæsthetic was given, as from the condition of his circulation and his blunted sensibilities it was thought inadvisable and unnecessary. He resented the incisions through the skin and muscles, but otherwise did not appear to suffer much pain. Surgeon-Major Magill, Coldstream Guards, kindly assisted me. The measurements used for defining where the trephine should be applied were those laid down by Mr. Barker in his lectures at the Royal College of Surgeons in June, 1889. For reaching the temporo-sphenoidal lobe an incision about an inch long was made vertically, having its centre at a point an inch and a quarter behind the centre of the meatus in Reid's "base line" (passing from the inferior margin of the orbit backwards through the centre of the meatus), and an inch and a quarter above the line. A second short incision was made, passing backwards from the centre of this incision. The soft tissues having been separated from the bone a half-inch trephine was applied having its centre at the point above indicated. The circle of bone was removed and the dura mater incised. A trocar and cannula having the diameter of an ordinary knitting-needle were then passed in various directions into the brain substance. No pus was obtained. Accordingly, a spot was chosen an inch and a half behind the meatus in Reid's "base-line" and one inch below it, with a view to explore the cerebellum. A vertical incision was made, and—the smart hæmorrhage which occurred having been stopped with catch-forceps—the soft tissues were cleared from the bone with an elevator and the handle of the scalpel, and a quarter of an inch trephine applied with its centre at the above-named point. The circle of bone having been removed, the trocar and cannula were introduced into the cerebellum, when some very thick pus slowly flowed out. A larger cannula was introduced, and finally an indiarubber drainage-tube, nearly a quarter of an inch in diameter, which was left *in situ*. About three drachms of pus altogether were evacuated. Some boracic lotion was then injected with the view of washing out the abscess cavity. A rectal injection of milk and brandy had been given before the operation, and towards the close the pulse was so unsatisfactory that repeated hypodermic injections of brandy were given. The pulse improved and he was able to swallow. Silver sutures were used to close the wounds and sal alembroth gauze, moistened with perchloride of mercury lotion, was applied.

On the following morning (July 25th) his aspect was improved; he was more conscious, realised what was said to him and swallowed nourishment (half an ounce of brandy with milk every three hours); pulse varying in frequency from 102 to 110; temperature 97°. In the evening the wounds were dressed; there was no pus in the dressings. The pulse was much the same as in the morning; temperature 97°. The drainage-tube was taken out, washed, shortened about one-third of an inch and replaced. The ear had been discharging; the pupils were equal, reacting to light, but rather sluggish; at 11 P.M. the pulse was very variable (100 to 116), temperature 97·8°; the respiration was irregular and bore much the character of Cheyne-Stokes respiration; his aspect, however, and his mental and general condition gave reason to hope at this time that improvement would continue. On the morning of July 26th his condition was unsatisfactory; he had vomited, and was evidently failing; hypodermic injections of brandy were given, but he grew gradually weaker and died in the afternoon at 3.15; during the morning his temperature had been 100·4°.

Necropsy, twenty-one hours after death.—The condition of the wounds was satisfactory. The upper wound gave evidence of healing by first intention, and the trephine opening was occupied by lymph and blood-clot; the dura mater lining the left inferior fossa of the occipital bone was a little congested and roughened in places, but with this exception there was no evidence of meningitis; no subdural abscess was found, and no extravasation of pus into the meninges or ventricles; the trephine opening into the left inferior fossa of the occipital bone was found to occupy the most dependent position, thus favouring free drainage. The brain tissue was but little altered in appearance by the wounds made by the trocar and cannula. The abscess cavity in the left lobe of the cerebellum was not circumscribed, the walls of the cavity, except at the inner and anterior portion, where the tissues were somewhat indurated, being formed of softened brain tissue. The drainage-tube freely entered the abscess cavity, which contained a little very thick pus. On examining the petrous portion of the temporal bone the dura mater covering the central part of the anterior surface, and to a less extent the posterior surface, was found discoloured, and on removing this a large piece of necrosed bone not yet loosened from its connexions was observed. There was a small perforation also at the posterior part of the anterior surface of the bone leading into the mastoid antrum, but no evidence of any active inflammatory mischief in the mastoid cells was found. The edges of the mitral and aortic valves were thickened slightly, and on the latter valves were some very minute vegetations just visible to the naked eye. The other organs were found healthy.

Remarks.—In this case the antecedent history and the symptoms which the man presented on admission to hospital left little doubt as to the course which should be adopted. The patient's aspect and mental condition, the history of rapid loss of flesh, the subnormal temperature, infrequent pulse and retracted abdomen, taken in conjunction with the existing ear disease which had originated at some date prior to the commencement of his present acute symptoms, all pointed to intra-cranial suppuration. Although the symptoms did not lead one to hope that by freely opening the mastoid cells and scraping out the polypus and the granulation tissue occupying the middle ear relief would be given, yet it may be argued that this should have been done before proceeding to explore the interior of the skull. The patient's condition, however, on the day of the operation had become so grave that it was thought right to trephine at once rather than to prolong the operation by first opening the mastoid antrum. It was felt that this minor operation for effecting the drainage and cleansing of the middle ear might be performed subsequently in the event of the patient's condition improving. It is to be regretted that the cerebellar abscess was not opened forty-eight hours earlier—on the afternoon of the man's admission to the hospital.

INSTRUCTION IN FEVERS.—A notice has just been issued by the Metropolitan Asylums Board informing medical students that a course of instruction in the diagnosis and treatment of fevers will be given at the following hospitals, the fee for the course being three guineas for two months, and one guinea for each month afterwards:—Eastern Hospital (Dr. E. W. Goodhall), Tuesdays and Fridays at 10.30 A.M. North-Western Hospital (Dr. W. Gayton), Tuesdays and Thursdays at 11 A.M. Western Hospital (Mr. R. M. Bruce), Tuesdays and Fridays at 11 A.M. At the above hospitals the course will commence on Oct. 4th. The lecturers at the South-Western and South-Eastern Hospitals (Dr. F. F. Caiger and Dr. MacCombie) respectively will commence on Oct. 11th, and will be given on Tuesdays and Fridays at 11 A.M.

THE TREATMENT OF FILARIA SANGUINIS HOMINIS.

BY P. MANSON, M.D., LL.D. ABERD., M.R.C.P. LOND.

MY experience of the action of thymol on the filariæ of the blood coincides with that of Surgeon-Lieutenant-Colonel A. Crombie as detailed in THE LANCET of Aug. 13th. Soon after Surgeon-Lieutenant-Colonel E. Lawrie's article on this subject appeared in THE LANCET of Feb. 14th, 1891, I had an opportunity of trying thymol in the case of a negro in whose blood both species of African filariæ—viz., filaria sanguinis hominis diurna (major) and filaria sanguinis hominis perstans (minor)[1]—abounded. This patient took thymol regularly for over two months without any effect whatever on his blood parasites—at all events at the time—and six months later they were quite as abundant and just as active as before treatment commenced. The attempt to cure filarial chyluria by the administration of a parasiticide, as suggested by Surgeon-Lieutenant-Colonel Lawrie, is founded on a misconception of the true pathology of this disease and of the part played by the filaria in its production. The filaria stands to chyluriæ very much in the same relationship as rheumatic fever stands to heart disease and gonorrhœa to urethral stricture; it starts the disease process, but its constant presence is not necessary for keeping it up. To attempt, therefore, to cure chyluria by trying to kill the filaria is as illogical and as useless a proceeding as to attempt to cure established heart disease by salicylates or stricture of the urethra by astringent injections. This is evident if we consider the order of events in the production of chyluria. This is as follows: A parent filaria is lodged in the thoracic duct. In some way not yet understood it injures the walls of the vessel, causing ulceration or inflammatory thickening. In time this lesion leads to stenosis of the duct. *Pari passu* with the development of the stenosis the thoracic duct on the distal side of the stricture dilates, owing to the rising excentric pressure from accumulating contents. After a time the stricture becomes so narrow that the lymph and chyle no longer find their way past it to the left subclavian vein. They seek, however, to reach the blood by another route; a retrograde movement down the thoracic duct sets in, and so, travelling by way of the pelvic lymphatics, the lymphatics in the walls of the abdomen, and the anastomosis between these and the lymphatics of the upper part of the body, the chyle from the intestines and the lymph from the lower extremities find their way into the circulation. Possibly there are other routes, as by the lymphatics of the œsophagus, diaphragm and back; it is certain, however, that a common course pursued is that described, which is very much the same as that pursued by the blood in the case of obstructed portal circulation. To accommodate this increased and diverted chyle and lymph circulation the lymphatics by which it passes become enlarged and in many places varicose. The tendency to varicosity is very evident in such places as the scrotum, mucous membrane of the bladder, or wherever the lymphatics are abundant and feebly supported. In many instances these varices, where superficial, can be seen or felt and their nature readily recognised. If the inguino-femoral glands are involved the varicose groin glands, so characteristic of filaria infection, are produced; if the scrotal lymphatics are in the track of the regurgitating lymph and chyle the equally characteristic lymph scrotum may be produced. Sometimes the varix is apparent on the surface of the abdomen even, as in the case related by Sir William Roberts and in another by Havelhing[2]: That these varices are really part of an anastomosis conveying chyle from the abdominal viscera to the blood is proved by the nature of their contents; these are usually milky white or slightly red tinted chyle—not lymph, clear and limpid, such as comes from the legs. As the lacteals are the only source of chyle these chylous contents of the varicose lymphatics must have come from that source, and the route followed must have been the retrograde one I describe. Now if the lymphatics of the bladder happen to be involved in the compensatory anastomosis, and if they give way, as the lymphatics of the scrotum so frequently do in similar circumstances, the result is a leakage of chyle into the bladder and chyluria. It is evident from this that the embryo filariæ, although they are generally present in the blood and urine in chyluria, have nothing whatever to do with its production. This is further proved by the fact that in some few cases of genuine and persistent tropical chyluria no embryo filariæ can be found either in blood or urine. I had recently such a case under observation. In such cases the parent filaria must have died after injuring the thoracic duct, or possibly there may have only been a male or an unimpregnated female parasite present. Further, although the parent filaria was necessary for the production of the lesion in the thoracic duct in the first instance, its continued presence there is not necessary for the maintenance of the lesion. So that whether the filaria which originally wrought the mischief dies or lives is a matter of no consequence as affecting the chyluria; the stricture of the duct once produced is permanent, and the chyle will continue to flow along the compensatory anastomosis, and perhaps from time to time burst the walls of the varix and appear in the urine. That this is the pathology of most cases of chyluria is proved by more than one post-mortem examination, as well as by a multitude of observations on the living subject. This being the case, it is difficult to see in what way benefit could accrue from killing either the embryo or the parent filaria, or how an anthelmintic, even supposing it were effective as such, could possibly cure chyluria. Many declare they have cured chyluria by drugs; but those who say so should bear in mind that nearly every case of chyluria ceases spontaneously from time to time and also recurs spontaneously, no matter what treatment is adopted. I have no doubt Surgeon-Lieutenant-Colonel Lawrie's cases recovered while taking thymol, but I do not think they recovered permanently, or in consequence of taking this drug; and so with Dr. Walsh's cases referred to by Surgeon-Lieutenant-Colonel Crombie. A knowledge of the pathology of chyluria, elephantiasis and filaria disease in general teaches us that our endeavours ought to be directed rather to keeping the parasite alive and in a healthy state than to interfering with it and worrying it into conditions of ill-health in which the functions of gestation are imperfectly performed. There is a considerable body of evidence to show that under normal conditions the filaria is innocuous, and that it is only when abnormally located, or when it acts as an irritant, or when from some cause the contents of its uterus are prematurely evacuated, or when it dies, that this parasite becomes a danger to its human host.

I have lately obtained some striking evidence as to the nature of the connexion of filaria nocturna with elephantiasis, and which has an important bearing on this point in the treatment of filariasis. Through the kindness of Surgeon-Major Elcum (Cochin) I received 88 slides of blood drawn during the night from 88 natives of Cochin, a district of India in which elephantiasis is excessively prevalent. Of these 88 Cochinese, 14 had elephantiasis and 74 were healthy. Of the slides from the 74 healthy subjects 20 contained filaria nocturna embryos in abundance. Assuming that these 74 Cochinese fairly represented the general population of Cochin as regards liability to filariasis, we may conclude that about one individual in every 3½ in Cochin is infested with filariæ. Of the 14 slides from the 14 cases of elephantiasis only one contained filariæ. At first sight this result might seem to be conclusive against the filarial origin of elephantiasis. A little reflection will show, however, that this is far from being the case; that, on the contrary, it is a very strong argument in favour of this doctrine. For why should the subjects of elephantiasis enjoy this apparent comparative immunity from the filaria in a region where it is so extensively prevalent, unless it be that the filaria is in some way connected with the elephantoid condition? The fact is that the immunity is apparent only. Elephantiasis has for its remote and originating cause obstruction of the lymphatic circulation in the part affected. This is universally admitted. I have endeavoured to show[3] elsewhere that the cause of this obstruction in the case of elephantiasis is an embolism of the afferent vessels of the lymphatic glands by prematurely expelled ova from an aborting female filaria. If there is obstruction of this sort in a gland-guarded lymphatic area, such as the lower extremities, then it is simply impossible for filaria embryos to traverse the glands and enter the circulation; the implicated parts are cut off as it were from the blood. Therefore it is that, although the filaria produces elephantiasis, it is a comparatively rare thing to find the filaria in the blood in these cases, as it is impossible for the embryo filariæ proceeding from

[1] THE LANCET, Jan. 3rd, 1891.
[2] Virchow's Archiv, Bd. lxxxix.

[3] The Filaria Sanguinis Hominis, &c.: H. K. Lewis.

the parent in the implicated area to enter the circulation. This shows the importance of protecting the filaria and the danger of injuring it. If in these fourteen Cochinese the filaria had remained healthy, never aborted, never obstructed the lymphatics, there would have been no elephantiasis. And so I hold that once established in the human body the filaria should be left alone, protected rather than persecuted. Pathology indicates that the proper treatment of chyluria is in principle the same as the treatment of acquired varix in any inaccessible region. This should be rest, elevation, lowering of the tension in the lymphatic vessels by the use of saline purgatives, limited and appropriate food, abstinence from fluids as much as possible. Certain drugs have been vaunted as specifics for chyluria; I have tried several of them, but never with success of a permanent character. Temporary recovery from time to time is the rule in chyluria, and the drug which was being used at the time the urine cleared spontaneously from healing of the rupture in the varix in the bladder is often credited with the cure. I cannot understand how a drug introduced by the mouth can possibly cause the closure of a gaping varix in the bladder.

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HIPPOCRATES AND ELBOW FRACTURE.

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IN view of recent papers, notably those of Nunn before the Clinical Society of London and of Stimson and Lane before the American Surgical Association, I think it may not be out of place to draw attention to what Hippocrates says on this important subject. Reference to Adams's translation for the Sydenham Society will show that Hippocrates did not simply put the arm up at right angles; on the contrary, he gives very explicit instructions, which seem to have been entirely disregarded, and which Adams himself appears to have misunderstood. Hippocrates shows that it is bad to bind the arm in the extended and semiprone (Archer's) position, or the extended and supine position, because when the arm thus bandaged is bent to a right angle the bones at the elbow assume a different attitude from that assumed when they were bound up. He then says: "But if one will extend a broken arm as I direct, he will turn the bone situated at the extremity of the little finger into the straight line and also the one at the elbow, ... and when the arm *is* suspended in a sling it will be in the same attitude as that *in* which it was bound up" &c. Adams in a note says it is the straight position that Hippocrates deprecates. But Hippocrates distinctly tells us to extend the arm and to place the forearm in the only remaining position—viz., in pronation. But what is the difference between flexing a supine or semiprone arm on the one hand and a pronated arm on the other? I am greatly indebted to Sir William Turner, before whom I placed this problem, for having investigated this matter for me, and through his kindness I am enabled to give my own conclusions as facts founded on actual experiment. Morris tells us that "the hand in flexion is carried towards the middle third of the clavicle, and any greater inclination of the forearm towards the median line of the body.....is caused by rotation of the humerus at the shoulder."[1] Associating this fact with what Hippocrates says I came to the following conclusions:—1. On flexing to a right angle a supine or semiprone arm there is rotation of the humerus at the shoulder. 2. On flexing to a right angle a pronated arm there is no rotation of the humerus. In this last the necessary rotation of the humerus takes place on pronating the forearm and while the limb is still in extension. Hence, with the arm bound, extended and prone, it is quite ready to be bent to a right angle without any movement other than flexion. The bones at the elbow may thus be said to be in the same attitude as that in which they were bound up. Now to apply this to elbow fracture, if the fragments be adjusted with the limb extended and supine or semiprone, when the arm is bent to a right angle the necessary rotation of the humerus will tend to occur, not at the shoulder, but *at the seat of fracture*. Thus, however perfect the setting in the first instance, there is likely to be displacement as soon as we bend to a right angle. On the other hand, if the fracture be set with the arm extended and prone, there is not the same danger of displacement when bending to a right angle, though, in my opinion, the mere act of flexion may be sufficient to cause displacement. We thus see that there is a very good reason why Hippocrates should say that fracture of the elbow is best set in the extended and prone position. It is only in the straight position of the arm that we can be sure of accurate coaptation of the fragments; however great the displacement it will never be detected so long as the arm is bent. It is not enough simply to put the arm up at right angles and rest satisfied because we have placed the limb in the orthodox position. I do not think this is what Hippocrates meant us to do, and unless we follow the careful instructions he gives us I think the rectangular position is the worst that could be adopted. If I am correct in my interpretation of Hippocrates' words, would it not be better, in all injuries of the elbow, to dress the limb in the straight position with the forearm prone? Those who have employed this method find that they obtain a much earlier return to usefulness and, above all, *obviate the deformity* so frequently seen after treatment in the rectangular position. With the arm extended and prone the outward configuration of the limb becomes practically straight, so that instead of a complicated angular splint a simple straight one can be applied, thus enabling the surgeon to see that all is right. The normal outward obtuse angle at the elbow is formed by the humerus and ulna; it is still present, therefore, whether the forearm be prone or supine. Whilst, therefore, we are keeping up the normal relation of bone to bone we have a limb that is much more easily dealt with if the forearm be prone than when it is supine, and the latter position becomes extremely tedious after a time. The prone position is a natural one, and most comfortable to the patient; and since it is associated with slight flexion we avoid the danger of over-extension—an important point in treatment of fractured olecranon.

In elbow fracture the injured tissues on the flexor aspect require to be kept at their normal physiological length in order that they may not heal with shortening; the opposite holds good for the extensor surface. The straight position is certainly indicated for injuries of the elbow-joint, more especially as with the arm extended there is no impediment to the flow of the blood or lymph. Absorption can therefore proceed and healing can in this position be greatly aided by means of massage. The most important point in these cases is to obtain accurate coaptation of the fragments. The better the setting the sooner the fragments will unite. The sooner union takes place the sooner will passive motion be permissible. When the joint is first moved I hold that it should be through its natural path. If movement be painful it is very apt to be harmful. Fracture of the elbow is often overlooked; but if the straight position were to become the rule instead of the exception, then the treatment of dislocation would not be detrimental to possible fracture. Those who use the bent position seem to be the most anxious to begin passive motion early. Those who use the straight position find early motion unnecessary. It is only a question of accurate coaptation of the fragments. In the bent position we can only hope that all is well; we cannot be sure that reduction is being kept up. In the straight position we can be sure of good position, and there will therefore be less tendency to stiffness and an earlier return to usefulness, and, further, less likelihood of exuberant callus; and we entirely avoid deformity.[2]

[1] See also Cathcart, Journal of Anatomy and Physiology, vol. xix., 1885.

[2] Those interested in the subject will be glad of the following references:—Provincial Medical Journal, Jan., March, and April, 1892: Transactions of the American Surgical Association, vol. ix., 1891.

THE members of the Metropolitan Asylums Board will inspect the new fever hospital now in course of erection at St. Ann's-road, Stamford-hill, N., to-day, Friday.

NEW RECREATION GROUND FOR ST. ALBANS.—Sir J. Blundell Maple, M.P., has sent a letter to the Corporation of St. Albans in which he gives particulars of the gift which he intimated some time ago he was about to bestow on this town. The hon. gentleman will also erect a lodge and cricket pavilion and bear all expenses connected with the laying out of the grounds, which cover about 24 acres. The isolation hospital, which was lately presented to this corporation at a cost of some £4000, has just been completed.

NOTES ON SOME CASES OF DIABETES INSIPIDUS WITH MARKED FAMILY AND HEREDITARY TENDENCIES.

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I HAVE been induced to place on record the notes of certain cases of diabetes insipidus, thinking that they are of interest. Dr. Vincent Harris, under whose care the cases were in the City of London Hospital for Diseases of the Chest, Victoria-park, has kindly given me permission to send particulars of them for publication.

CASE 1.—The case which came most under observation was that of W. S——, aged fourteen, residing in Essex, who was admitted to the hospital on Jan. 2nd, 1892, with a slight cough and a history of wasting, which had been more marked for the preceding two or three months. About fourteen days previously to his admission he had what was called influenza, following on which he had one or two attacks of epistaxis of some amount. He also suffered for a day or two from considerable restlessness and feverishness at night, with drowsiness during the daytime and frequent dull headaches, localised at the top of the head, accompanied with pain behind the eyes, which were said to have had the appearance of being swollen. Since then he felt excessively weak. Even as a child he was subject to extreme thirst and passed large quantities of watery urine. At times he had an abnormal appetite. He never was a strong boy. From infancy till he was three years of age he had been subject to fits—loss of consciousness and struggling. He had measles and whooping-cough and at nine years of age some rheumatic attacks. There was no history of scarlet fever or chorea, and none of injury in childhood. He had always spoken slowly, and for some time had had a catch in his speech—a hesitancy in utterance akin to but not amounting to stammering. He was pallid, anæmic and listless, and at times drowsy; his forehead was broad and perpendicular, but the head was a fair size; his eyes were large and prominent and the pupils widely dilated; his chest was somewhat rounded in shape. There was no marked hollowing of the supra-clavicular or infra-clavicular fossæ. Expansion was good, and, with the exception of a slight harshness of the breath sounds at the left apex, there were no abnormal physical signs to be made out over the lungs. The area of cardiac dulness was not enlarged. The cardiac sounds were free from murmur, but the second sound was accentuated at the aortic base. The liver and spleen were not enlarged. So far as could be made out the kidneys were not unduly large. The bladder extended up to the umbilicus and after urination to midway between the umbilicus and symphysis pubis. The skin was dry and had to some extent a cutis anserina appearance. His hands and feet got easily cold and sometimes were quite livid. There was no hyperæsthesia or anæsthesia and no abnormal sense of heat and cold. His deep reflexes were normal, but his superficial reflexes were exaggerated, especially those over the abdomen. A tache cérébrale could be easily brought out over the chest and arms. His pupils contracted to light and accommodation only very slowly. His tongue was protruded and withdrawn slowly, and was tremulous when protruded. Movements generally were delayed. The muscular system appeared fairly well developed, but the muscles themselves were flabby. His appetite was good, his tongue was broad and flabby, slightly furred posteriorly. The bowels had a tendency to constipation. His thirst was considerable, and he passed a large quantity (about 200 ounces) of pale watery urine, which had a greenish tinge, no odour, a neutral reaction, a specific gravity of 1001, and contained no albumen or sugar and only a slight trace of inosite. The amount of urea present was about 3 per cent., and averaged from 28 to 30 grammes in the twenty-four hours. His pulse was small, regular and of high tension, and numbered 68 per minute; his temperature was 98·4°, and the respiration, which was fairly deep and easy, numbered 28 per minute. During the three months under observation he was placed on a mixed diet and was allowed as much fluid to drink as he wished. The quantity which he drank was carefully measured and a daily record kept. The quantity of urine passed was also carefully noted. Under treatment his general condition improved considerably. His thirst became much less, and there was also on the average a falling off in the amount of urine passed. He also gained somewhat in weight. The amount of urea present remained between 0·3 and 0·5 per cent., and occasionally the urine gave the reaction for acetone.

The following is a table showing the results of treatment:—

Duration of treatment in days.	Specific gravity.	Quantity of fluids taken in ounces.		Quantity of urine passed in ounces.		Treatment.
		Max.	Min.	Max.	Min.	
4	1001–1002	460	404	224	178	——
19	1001–1004	460	285	306	184	Tonics—tincture of nux vomica.
7	1002–1004	420	260	298	208	Liquid extract of ergot, increasing to 1 dr., three times a day.
6	1001–1004	340	260	329	264	Liquid extract of ergot, 1 dr. four times a day.
15	1002–1003	260	195	298	178	Liquor strychniæ, 3 min., tincture of perchloride of iron 15 min., three times a day.
13	1002–1004	205	105	236	149	Antipyrin, 10 gr. three times a day.
11	1002–1006	140	105	230	134	Antipyrin, 15 gr. three times a day.
19	1002–1006	105	60	206	156	Compound tincture of valerian 1 dr., citrate of iron and ammonia 5 gr., three times a day.

CASE 2.—P. S——, aged nine, younger brother to Case 1, had had extreme thirst from infancy, and had always passed a large amount of watery urine. Beyond measles and whooping-cough he had had no illness. There was no history of injury in infancy and none of infantile convulsions. He had been getting weaker of late. He had no cough or expectoration, and no night sweats, dyspnœa &c. His bowels were fairly regular and his appetite good; thirst was excessive. The tongue was pale and flabby, broad and thinly furred posteriorly. His pulse was 84, small, regular and of somewhat high tension; his temperature was normal and respiration, which numbered 20 per minute, easy and of good depth. The urine was pale and watery, with a greenish tinge; its reaction was faintly acid and had a specific gravity of 1002. It contained no albumen and no sugar, but there was present a trace of inosite and also of acetone acid. The patient was pale, anæmic and listless. His skin was dry and livid, due to venous congestion; the veins were well marked all over the body; his conjunctivæ, lips and gums were pale; the pupils were dilated; his fingers were livid, and his feet and hands got easily cold. The chest wall was well covered; it was somewhat barrel-shaped, and there was no depression of the supra-clavicular or infra-clavicular fossæ. The expansion of the chest walls was fair. There were no abnormal physical signs over the lungs. The cardiac apex impulse was small, and was felt half an inch inside the nipple line in the fifth space. The area of cardiac dulness was not enlarged; the sounds were free from murmur, but the second sound was accentuated both at the apex and at the base, to the right of the sternum. The liver and spleen were not enlarged. The abdominal walls were very flaccid. The bladder reached up to the umbilicus, and after micturition it was still considerably enlarged. The skin of the body and chest was very sensitive; the slightest touch anywhere caused him to shrink, as it caused a tickling sensation. The superficial reflexes were exaggerated, especially the abdominal ones. His muscular system was flabby, but fairly well developed. During the period under observation—viz., twenty-four days—the general condition remained pretty well unaltered, the patient drinking between 240 and 135 ounces of fluid, and passing between 320 and 190 ounces of urine. At the same time there was a slight gain in weight.

CASE 3.—E. S——, aged seventeen; as an infant was always crying till he got something to drink. He had what his mother called "infantile fits" from infancy till he was three years of age; none since. He had had measles, whooping-cough, chicken-pox and diphtheria; otherwise he had always been well, but never strong. There was no history of injury &c. He was always a backward boy, his intellect being slow. He had a low forehead, a flushed face, and a dull heavy expression. His pupils were somewhat dilated, his lips heavy, and the lobules of the ears were large and thick. The skin was dry and coarse. His superficial reflexes were exaggerated, his movements generally delayed; his pupils responded to light

and accommodation, but very slowly. He had no abnormal physical signs over the chest or abdomen; his bladder was somewhat dilated. He passed about 368 ounces of pale watery urine, which had a neutral reaction, a specific gravity of 1005, and contained no albumen or sugar, and but a trace of inosite. The amount of fluid drunk averaged about 265 ounces per twenty-four hours.

Family history.—Case 1: W. S——, aged fourteen, affected. Case 2: P. S——, aged nine, affected. Case 3: E. S——, aged seventeen, affected. One sister alive and healthy, not affected; one sister died of diphtheria, not affected. Father's family: Healthy, nothing to note. Mother's family: Mother alive, aged forty-six, slightly affected. Three brothers died of wasting, aged five years, seven months and eleven months: all had excessive thirst and passed a large amount of urine. One sister died of phthisis, aged sixteen, not affected. Two sisters alive; one suffers from heart disease and one from winter cough, not affected. Mother's mother is alive, aged seventy-four, slightly affected. One of her sisters is alive and slightly affected. Two sisters died, one of cancer of the throat and one of phthisis; neither of them affected. One brother died of cancer of the intestine, not affected. One brother is alive and is affected with extreme thirst. Neither of them had any children. Mother's grandmother died of cancer of the stomach. Mother's father died, aged seventy-two, of apoplexy. His father, two brothers and one sister died from paralysis, all over sixty years of age; none of them affected so far as known.

That diabetes insipidus is a condition which is inherited to a remarkable degree has been well shown by the cases which have been recorded by Gee and Weil, especially in the marked case of the latter observer. The present cases are also marked examples of its inheritance and what seems to be a heredity occurring chiefly in the males on the female side of the house. The similarity of the three cases is interesting. In all of them the chief symptoms of excessive thirst and the passing of an unduly large amount of urine had been present from infancy. Never in any case while under observation did the specific gravity of the urine rise higher than 1007. The amount of urine passed was always more or less in excess of the quantity of fluid taken, having been in excess as much as 76 oz. on one occasion in Case 1 and 110 oz. in Case 2. In making these observations the possibility of error was carefully guarded against. The bladder in each case was found to be enlarged, and that the capacity of it was considerable may be inferred from the fact that while in the out-patient room of the hospital Case 1 passed about two pints of urine. The retention of this amount had not caused him any inconvenience. Further, the well-marked nervous symptoms present in these cases are worthy of note. These are well exemplified in the general want of expression which was continually present in the faces of the boys; the dulness of intellect, not amounting to idiocy; thin sluggish movements, and, above all, in the greatly exaggerated superficial reflexes. That nervous symptoms had occurred in two of the cases in infancy is certain. In fact, from the circumstances mentioned, it almost seems as if the origin of the disease in these cases is to be found in some peculiarity of brain condition by which some dulling of the functions of the higher centres by which their restraining power over the lower centres has been to some extent lost or, at any rate, modified.

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A FEW CASES

ILLUSTRATING THE PROBABLE DATE OF THE COMMENCEMENT OF THE INFECTIOUS PERIOD OF SMALL-POX.

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WHEN taking the histories of the patients lately admitted into the hospital ships, Long Reach, I have been much struck with the opportunities given for the spread of small-pox, without, however, that result occurring. Judging from these few cases, one cannot help thinking that the infectious nature of small-pox, at all events in the early stages, has been much exaggerated. The first case I give must be termed a small-pox curiosity, and I give it solely from its extraordinary history and not that it has any bearing on the points I wish to bring forward.

CASE 1. *Mrs. R——, aged forty-six; vaccinated in infancy (three scars); not revaccinated; initial symptoms, malaise before July 2nd, when she became distinctly worse; eruption, July 5th; admitted to the hospital ships, July 11th; discharged, July 30th.*—The patient keeps a small general shop and her husband is a baker. Up to July 11th she was attending to her shop. She states that spots appeared on her face and body on July 5th, but she was obliged to serve in the shop, and therefore had a sofa in the back parlour, getting up and down to serve her customers. During this time she was looked after by her husband and daughter (aged thirty and sixteen respectively), and as she quaintly said, "lots of her neighbours would come in and argue whether she had small-pox or not," because a neighbour who had suffered from small-pox in former years declared that Mrs. R—— had it then. The husband and daughter had both been vaccinated in infancy, but were not revaccinated on Mrs. R——'s removal, having some strong objections to that process. With all these possibilities no further cases have resulted from six days' exposure in a very wholesale way of a patient with a small-pox eruption. A letter from Mrs. R—— after her discharge stated that her husband and daughter had not suffered in the slightest degree and that no spots had appeared on them. It seems hopeless to attempt to explain this, especially as it was definitely stated that the husband and daughter had never had small-pox as far as they knew.

CASE 2. *W. J——, a male aged nineteen; vaccinated in infancy (four scars); not revaccinated; initial symptoms, malaise, July 4th, continuing up to July 8th, when he really felt ill and first noticed a rash; eruption, July 11th (about noon); admitted to the hospital ship, July 12th; discharged, Aug. 13th.*—The patient is a porter and works at a milliner's, employing twenty-five hands. On July 8th he had been carrying parcels as usual and had had his meals with the rest of the employés. In the evening he went home to bed feeling really ill, where he remained until the morning of July 11th, when he walked to one of the general hospitals in London—about ten minutes' walk. He remained for about an hour in the surgery, which was rather full, until he was admitted into a general ward, from which he was soon removed to an isolation ward. The medical officer in charge has very kindly answered my inquiries, and stated that "no rash was visible, face flushed and temperature 103·6°." About noon that day the eruption appeared, "very small papules on the forehead and a few scattered on trunk," and the patient was removed about 11.30 on the next day, July 12th. Everyone who came into contact with the patient was re-vaccinated. On admission to the ship this patient had a distinct initial scarlatiniform rash, best marked over the gluteal region, at 9.30, and on the morning of July 13th it was still present over the front of the thighs.

CASE 3. *G. S——, a male aged twenty-seven; vaccinated in infancy (stated); scars obscured by eruption; not revaccinated; initial symptoms, July 17th; eruption, July 18th; admitted to the hospital ship, July 20th; death, July 28th.*—The patient was employed at a large miller's, having over a hundred hands. On July 16th he went down to Hastings with all the rest of the hands for a beanfeast, and on the 18th he was at work all day in his shop with about sixty men, the eruption having been noticed on his face about 9 A.M. He left in the evening, feeling very ill, to go to the house where he lodged, and in which there were seven other inmates. This patient was well known as a very hard drinker.

CASE 4. *C. B——, a male aged thirty; vaccinated in infancy (four scars); not revaccinated; initial symptoms, July 16th; eruption, July 18th; admitted to the hospital ship, July 19th; discharged, Sept. 3rd.*—The patient is a telegraph labourer at some works where about two thousand men are employed, and in his shop there are, roughly estimated, fifty men. He was at work up to 3 o'clock on Saturday afternoon, July 16th; he then went straight home to bed and remained there until his removal to the ship. His wife slept with him up to the time of removal (10.30 A.M. on July 19th), and his child, two years old, had a bed in the same room. A medical man saw the patient on the morning of the 18th, when there was no eruption; in the afternoon, about 5 o'clock, it appeared. His wife was in constant attendance and slept with him during the first seventeen hours of the eruption; she was vaccinated in infancy and so was the child, and the wife was successfully revaccinated on July 21st, and has had no signs of small-pox since.

CASE 5. *E. B——, a female aged sixteen; initial symptoms, July 21st; eruption, July 23rd (morning); admitted to the hospital ship, July 26th; discharged, Sept. 3rd.*—This patient lives with her aunt, who keeps a general store; she does the house work and occasionally serves in the shop. Her sister, aged eighteen, who was home for a week's holiday from Saturday, July 16th, in the evening, to the morning of Sunday, July 24th, and slept in the same room, but not in the same bed, noticed spots on E. B——'s arms and hand about 8 A.M. on July 23rd. A neighbour from next door was shown the spots at 11 A.M. and again on the Monday, July 25th, at about the same hour, and the patient was nursed by her aunt until her removal on the 26th, about 6 P.M. The aunt was therefore exposed for three days and a half, the sister for twenty-four hours, to the eruption, and a neighbour for a short time on the first and third days of the eruption. Inquiries elicited the following facts: The aunt, aged thirty-two, was vaccinated in infancy; revaccinated unsuccessfully after patient's removal. Mrs. H——, the neighbour, aged thirty-four, was vaccinated in infancy; neither had had small-pox. The sister, aged eighteen, was vaccinated for the first time on July 28th, which succeeded; therefore this unvaccinated sister was exposed for twenty-four hours to the eruption without contracting the malady, and since she was successfully vaccinated two days afterwards it is fair to suppose that she was susceptible to variola.

CASE 6. *M. P——, a female aged seventeen; vaccinated in infancy (five imperfectly defined scars); not revaccinated; initial symptoms, July 21st and before; eruption, July 24th (about 7 a.m.), face; admitted to the hospital ship, July 25th; discharged, Aug. 27th.*—On July 18th she felt sick and had pains all over her; these continued and became worse until July 23rd, when she was not able to do her work. On Sunday, July 24th, she noticed spots on her face and hands when she woke up about 7 A.M. She was nursed by her father until her removal about 11.30 A.M. on the 25th, and was seen by a neighbour for about half an hour on that morning, when she was prepared for removal. The father therefore was exposed to the eruption for about twenty-seven hours and the neighbour for about half an hour on the second day. A letter from the patient's father after her discharge stated that the father was vaccinated in infancy; revaccinated some seven or eight years ago (three vaccination marks); never had small-pox. The neighbour, Mrs. L——, was vaccinated in infancy; not revaccinated (three vaccination marks); never had small-pox.

CASE 7. *R. B——, a boy aged sixteen, on board a training ship; vaccinated in infancy (four scars); stated to have been revaccinated three times unsuccessfully; initial symptoms, June 5th; eruption, June 8th; admitted to the hospital ship, June 8th; discharged, July 15th.*—This patient came into the sick bay on June 4th with a temperature of 99°, complaining of malaise. On the next day his temperature was 105·2°, and the eruption appeared on June 8th. The sick bay officer and six boys were in contact with the patient. The officer had had small-pox when young and three of the boys were at once revaccinated, the other three having been revaccinated in 1890. The captain of the ship kindly gave me full details and stated that thorough disinfection was at once carried out and the boy was brought to the ship as soon as the diagnosis was made. Here was full opportunity for the spread of small-pox if the disease were infectious in the incubation period; and six boys were in the sick bay with the patient during the initial illness and the first few hours of the eruption. This patient had confluent small-pox and was a good instance of Dr. Birdwood's theory of small-pox, for the captain stated that the patient had not left the gates of the ship's enclosure, but had been employed as boat boy. The eruption was extremely abundant except over the space covered by his flannel naval vest, where there was practically none; and, strange to say, the line commenced just above the gluteal region behind, as if the shirt had "rucked up" and so not protected the flanks. In front the pocks commenced just below Poupart's ligament. The pocks had sharp lines of demarcation at the shoulders, neck, gluteal region behind and Poupart's ligament in front; and with the exception of this "cuirass" of white skin he was simply one mass of pigmentation on his discharge.

CASE 8. *P. S——, a female aged twenty-five; vaccinated in infancy; not revaccinated (three scars, area 52 square inches); initial symptoms, July 24th; eruption, July 28th (early morning), arms then face; admitted to the South-Eastern Fever Hospital, July 30th; hospital ship, July 31st; discharged, Sept. 10th.*—This patient was delivered, normal time, on Wednesday, July 27th, at 10 P.M., by a midwife, who came at 9.30 and left about 11 P.M. Spots were first noticed about 7 A.M. on Thursday, the 28th. The midwife came again on Friday, the 29th, about 1.30 P.M., but fearing some infectious disease would only see the patient from the door for a few minutes. A medical man was then sent for, and the infant was removed soon after his arrival; it had been suckled up to that time, but had not taken the breast well. Mrs. S——'s aunt helped the patient in her confinement and nursed her up to the time of her removal; the husband was constantly present, and patient's sister saw her for a few minutes on Friday afternoon (29th) when taking away the infant. The midwife was really only in contact with the patient for an hour or so, about nine hours before the eruption appeared, the sister for a few minutes on the second day of the eruption, whilst the husband and aunt were exposed to infection up to the time of removal. I forgot to ascertain the time of removal, but it was late on Saturday, July 30th, for the medical man only diagnosed small-pox about 1.30 that afternoon. The husband and aunt were therefore in contact with the eruption for about two days and a half.

Inquiries elicited these statements from the husband:—Mr. S——, aged twenty-five; vaccinated in infancy; revaccinated in 1877; five vaccination marks. The sister, aged thirty; vaccinated in infancy; not revaccinated; two large marks. The infant "never had a spot;" was vaccinated when ten days old successfully in three places; died when four weeks old of, according to the father, "nervous debility and inflammation." He could give me no information about the aunt and the midwife. The probable cause of Mrs. S——'s infection is very interesting. Her two children were sent to the ships through an error of diagnosis, having really chicken-pox on June 16th.

The notes are these: M. S——, a female aged one year and a half; no initial symptoms; eruption, June 15th; admitted, June 16th; vaccinated in infancy (three scars); revaccinated, June 16th and 22nd, unsuccessfully. Condition on admission: Discrete eruption, papular, vesicular and scabbing in different places, some typical varicella vesicles; no pocks on palms, soles and palate.—June 27th (i.e., eleven days after admission): Some papules on face and a few on arms; not shotty, very little raised. Temperature normal; child peevish; no initial symptoms.

T. S——, aged three months; initial symptoms, June 14th, first observed; eruption, June 15th; admission, June 16th; vaccinated in infancy; revaccinated, June 16th and 22nd, unsuccessfully.—July 6th: Drowsy during the afternoon; 10 P.M. crying out; limbs occasionally twitching; headache, flushed. Temperature 105° at 9.30 P.M.—July 7th: Punctate rose rash on legs; three small papules on face, apparently new.—July 8th: Temperature 98·2°. Child seems perfectly well. Patient discharged.

There were many opinions as regards the condition on the 7th, but no definite conclusion. Mrs. S——'s eruption appeared on July 28th. Dating back fourteen days, makes the probable day of infection July 14th, or six days after the return of her children. Then comes the question as to source of infection: (*a*) Another strange source. (*b*) Did the child J. S—— have small-pox, modified to an abortive papular stage, which was capable of infecting his mother rather severely on the seventh day after the eruption? (*c*) The children's clothes. But the precautions taken on discharge are most stringent, and I consider this source unlikely.

CASE 9. *E. C——, a female aged seventeen; vaccinated in infancy (four scars); not revaccinated; worked at a dressmaker's in the West-end; initial symptoms, Aug. 13th, about 11 a.m.; eruption, Aug. 16th (morning), face; admitted, Aug. 19th.*—On Saturday, Aug. 13th, the usual initial illness commenced about 11 A.M. The patient continued working at her shop until 2 P.M., when she went home to dinner, and then thought a walk would do her good, but before she had gone far she "felt unable to stand up," so returned home and went to bed. On Monday, Aug. 15th, she was seen by a medical man. Spots appeared early on Tuesday morning, Aug. 16th; on the 18th the condition was diagnosed, and the patient was removed about 10 A.M. to the South-Eastern Fever Hospital on the 19th. She was nursed by her mother during the day, by her father (who had had small-pox when young) during the night and the landlady continually saw the patient each day. On the Saturday, Aug. 13th, in addition to eleven other workers at the shop, she was seen by three cousins. On Sunday, Aug. 14th, her sister and two brothers were constantly with her. Her father and elder

brother both work at a large printing establishment, while the younger brother goes to a Board School; her sister works at the same dressmaker's, but in consequence of "slack work" has not been employed since the beginning of August. A letter from the patient's father, in answer to my inquiries, confirmed the above statements, and also added that he himself and the landlady had suffered from small-pox in former years, but that the mother, aged forty-five, who was vaccinated in infancy and successfully revaccinated about twenty years ago, had not had small-pox. The mother therefore was exposed to the infection from the eruption for over three days. I should like to draw particular attention to what might have occurred had small-pox been very infectious during this time. (*a*) The patient worked at a large dressmaker's with eleven others up to the first day of initial illness, and was also (*b*) seen by two cousins on the first day of initial illness; (*c*) she was seen by a sister and two brothers (employments stated above); (*d*) there were no less than twelve people living in the same house, in addition to the patient.

CASE 10. *J. B——, a female aged thirty-seven; a case of confluent small-pox, who for some three days was in a most serious condition; vaccinated in infancy (four scars); not revaccinated; initial symptoms, Aug. 12th, 2 p.m.; eruption, Aug. 14th, 4 p.m., face and hands; admitted Aug. 15th.*—The patient was last working at her business, at a West-end tailor's shop employing twenty-five hands, on Friday, Aug. 12th. On Saturday, Aug. 13th, she went by omnibus to Charing-cross and then by steamer to Wapping to see her daughter off to the north, returned by steamer to Charing-cross and walked home. Two of her children had lately had chicken-pox (?), but no medical man was called in. This daughter above referred to was supposed to be recovering from that disease. However, on arriving at her destination, news of her coming having been sent to London, she was taken into the local hospital as a small-pox convalescent. The patient, feeling extremely ill on Sunday, Aug. 14th, asked another lodger to come and nurse her, and was attended by this neighbour until her removal, about 7 P.M. on the Monday, Aug. 15th; this woman was therefore exposed to the eruption for about twenty-seven hours. The mother and two daughters had been sleeping in the same bed for many weeks, and one daughter and a son were admitted with their mother, no doubt infected from the others, who had had chicken-pox (?).

From these few cases it is impossible to make a generalisation, but I should like to bring forward in a tentative way the probability that small-pox is not infectious, given ordinary conditions, until the second or third day of the eruption. The only evidence I can give is negative evidence, poor at the best; but the actual incubation period is difficult to determine, especially during an epidemic. Curschmann, for instance, was only able to definitely determine that point in 10 out of 1034 cases. There are so many causes of protection from small-pox which must be eliminated before any definite statement can be made.

1. The personal idiosyncrasy—i.e., insusceptibility to small-pox contagion. This, although there hardly seems any doubt about its truth, is so rare that for practical purposes it may be neglected.

2. The protection afforded by a former attack of small-pox.

3. The protection afforded by a modified attack of small-pox, so slight that often among the poor no medical man is called in. It is quite unrecognised and taken to be chicken-pox or measles, or some sort of low fever with spots, and the diagnosis is only clinched when other members of the same family develop small-pox in its severe type.

4. The protection from recent vaccination successfully performed. (During Dr. Birdwood's time as medical superintendent of these ships over 700 people have been employed as members of the staff—namely, from June 10th, 1884, to Aug. 27th, 1892; and among these there have been only three definite cases of small-pox.)

5. The protection afforded by partially successful revaccination—i.e., vaccination not producing typical Jennerian vesicles, but reaching a papular stage and then aborting. Of this I have myself seen a fair number of instances, but for how long this protection would last the data I have are insufficient for me to give any opinion. As a general rule vaccination may be regarded as absolutely protective for two years. Among our report books there are exceptions. Up to seven years there is a certain amount of protection, and without doubt a great modifying influence; after that period the protective power is rapidly lost, but the modifying influence causing the attack to be much less severe is retained in many cases. I have seen during the past few months cases which have only been vaccinated in infancy modify most distinctly, although their ages have been respectively nineteen, thirty-one, twelve, forty-six, forty, thirty, seventeen, seventeen, twenty-five, fourteen, and six. Whether these effects have been due to our present line of treatment or to vaccination I cannot say, but I feel rather inclined to give the vaccination the greater credit.

6. As to exposure, if Dr. Birdwood's theory of small-pox, published in the Guy's Hospital Reports for this year, be true, personal cleanliness should be a great means of warding off a possible attack of small-pox after exposure to infection.

7. That prompt vaccination after exposure is not absolutely protective is shown by twenty-two cases which I have tabulated from the report books at the ships since 1886 of concurrent vaccinia and variola, where the revaccinations varied from the day after exposure to the day of the eruption.

Taking the stages of small-pox separately and arguing from these nine cases, I have arrived at the following conclusions:—

1. During the incubation period six of these patients have definitely come into contact, more or less close, with *at least* a total of 261 individuals—that is, counting the training ship as having 50 boys, which is well within the mark. W. J—— came in contact with 25 persons; G. S—— with 100 at least, more or less intimately, when going to Hastings for his beanfeast, and with 60 (roughly) in his shop when at work; C. B—— with 50 when at work in his shop; R. B—— with, say, 50 boys at the training ship; E. C—— with 11 when at her work; J. B—— with 25 when at her work. As no cases, to my knowledge, have resulted from these six patients, I think one may fairly claim small-pox to be not infectious under the ordinary conditions of life during the incubation period.

2. As regards the infectiousness of small-pox during the initial illness the histories given by W. J—— and G. B—— are very definite, and I have been fortunate enough to be able to confirm their statements from other sources.

3. With reference to the infective nature of the eruption, I have given statements of exposure in the case of—(α) G. S—— to about 60 men on the first day, say for eight hours; (β) C. B——'s wife for seventeen hours, revaccinated three days after the appearance of C. B——'s eruption; (γ) E. B——'s sister for twenty-four hours, vaccinated for the first time five days after the appearance of E. B——'s eruption; (δ) M. P——'s father for twenty-seven hours, not revaccinated; (ε) J. B——'s neighbour, exposed to eruption for twenty-seven hours, has moved, no reply to inquiries, and patient was quite a stranger to her; (ζ) P. S——'s aunt and husband for two days and a half (see *supra*); (η) E. C——'s mother for over three days, not revaccinated; (θ) E. B——'s aunt for three days and a half, revaccinated unsuccessfully; and there have been no cases from these respective sources of infection.

Taking positive evidence instead of negative, I find in the report books for 1890 the following cases: A. N——, a sanitary inspector, and J. C——, the coachman, went to a patient, H. N——'s house, to remove him to the wharf on March 13th, 1890 (his eruption having appeared March 9th). They both helped him down the stairs, and, I believe, carried him to the vehicle. On March 26th they both developed the small-pox eruption, and were therefore infected on the fourth day of H. N——'s eruption, giving an undoubted incubation period of thirteen days to the appearance of the eruption.

T. C—— visited P. M——, a patient, at his house on May 18th, his eruption having appeared on May 17th. C. M——, his sister, also visited the patient on May 19th. They both developed the small-pox eruption on June 1st and 2nd respectively, having been therefore infected on the second and third days of P. M——'s eruption, giving an incubation period of fourteen days to the eruption.

In 1891 there is this case. W. J——, a potman, served W. D——, a dock labourer, on March 16th his eruption having appeared March 14th. W. D—— had been drinking in the public-house all the morning, and becoming objectionable several attempts were made to actually turn him out, and there were several scuffles; so W. J——'s exposure was more than seems to be meant by the word "served," and I believe the potman was the first to suspect what was the matter with W. D—— besides alcoholism. W. J—— developed the small-pox eruption on April 1st, therefore giving the incubation period at sixteen days and infection on the second day

In these cases there is one weak point. I can find nothing

beyond the bare statements. No times are mentioned; so it is impossible to give roughly the probable infectious period in hours after the first appearance.

As positive evidence of the proposition I am bringing forward there is the following:—

J. S——, a male aged seven, was admitted to the hospital ship on May 11th; eruption, May 9th. He was nursed by his father, who visited him when in a dangerous condition on May 16th, and developed the eruption on May 29th, dying principally through hæmophilia on June 8th. This case strongly suggests the probability that the son was not in an infectious condition when he was removed, but that the father contracted small-pox at his visit to the ships, where revaccination was not performed.

The small-pox epidemic of 275 cases originated in January at a Swiss restaurant near Oxford-street, and is a good example of the value of isolation as carried out by the hospital ships. It is now practically over, there being at present only four patients, and a month has elapsed since the last admission. Judging from the small number of cases which I have had the opportunity of seeing, and from the information of the probable period of infectiousness which I consider I have obtained, I am convinced that early recognition and prompt isolation are the most important steps to take in stamping out small-pox, and that all persons exposed to infection should at once be revaccinated, unless that had been successfully performed within two years. Should the theory which I have, however tentatively, tried to put forward prove to be true in the future, then small-pox, providing proper precautions be taken, ought never to be dreaded by a community, and should become a comparatively rare disease.

My thanks are due to Dr. Birdwood for his courtesy and kindness in permitting me to use the reports of his cases, and for his assistance in giving me the details of the cases showing the incubation periods.

IPECACUANHA IN DYSENTERY.

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THE following interesting case, illustrating the magical effect of ipecacuanha in large doses in the treatment of dysentery, has lately been brought under my notice whilst acting as physician to the French Hospital, Suez.

M. S——, a native of Austria, has resided for the last nine years at Ismailia. This town is notorious for malarial fever, and for three months in each year—July, August and September—she has suffered from intermittent fever. The paroxysm of fever came on about 11 A.M., terminating about 3 P.M. Towards the latter part of July of the present year she had a very severe attack of fever accompanied by acute dysentery. The diarrhœa was very troublesome, the bowels being moved as many as fifteen times in the course of the day, and the action being accompanied by much tenesmus. The character of the stools was typical of dysentery—at first yellow, then mucoid and slimy, with a very offensive odour. At the commencement of the attack retention of urine occurred for three days, and there have been subsequent attacks of dysuria. Four days after the commencement of the fever severe pain was felt in the right side, causing difficulty of breathing and accompanied by vomiting of a bilious character. On Thursday morning, Aug. 12th, I first saw M S—— in the consulting-room of the Suez Hospital. She had just arrived from Ismailia with her husband, and was supposed to be in an almost dying condition. On admission her condition was as follows: State of great prostration, with intense irritability and restlessness. Temperature 38°; abdominal tympanites and tenderness; hepatic fulness and intense sensitiveness, dysuria and diarrhœa. The stools were said by the nurse to be of the usual slimy dysenteric character, with a very offensive odour. The patient was placed in a cool ward by herself and absolute quiet enjoined. Twenty minims of tincture of opium were at once administered in a little water, followed in half an hour by half a drachm of ipecacuanha powder. Turpentine stupes were applied to the abdomen and the opium enema of the B.P. given. In the afternoon half a gramme of quinine was given in a cachet. The treatment was so immediately successful in stopping diarrhœa and easing pain that at night fifteen minims of laudanum, followed by a gramme of ipecacuanha, was again given, with another opium enema. For the first day the patient was allowed nothing but hot milk to drink. Aug. 12th: Patient has had four stools in the twenty-four hours, the temperature being 38·6°C. The ipecacuanha caused a good deal of vomiting, but almost stopped diarrhœa, greatly easing the pain in the side. The following powder was prescribed: Two grains of salicylate of bismuth, one grain of sulphate of quinine, one grain of naphthol, one-third of a grain of opium powder. This powder was divided into four cachets, one being taken every three hours. The opium enemata and turpentine stupes were continued. Milk and soda-water, or barley-water, was all that was allowed for diet.—13th: Temperature 38°C. The patient was very comfortable; slept well. Bowels moved three times in twenty-four hours. No abdominal pain. Allowed milk, bread and bouillon. Medicine to be repeated.—14th: Temperature 38°C. One motion in twenty-four hours.—15th: Temperature 37·8°C., the patient passing natural stools. Gets up during afternoon and takes more solid food. Ordered a gramme of quinine and carbonate of ammonia instead of the bismuth preparation.—16th: Temperature 38° C. The patient progressed satisfactorily.—17th: A slight return of diarrhœa, which was effectually stopped by ten grains of Dover's powder.—18th: All unfavourable signs having passed away, at her own request the patient left for her native home in Austria, with the remark that she would have died had she stayed in Ismailia.

The specific action of ipecacuanha in dysentery is due to its dual *modus operandi* on the intestines, as (*a*) muscular sedative, and (*b*) secretory stimulant. The most characteristic symptom of dysentery is tenesmus (Dr. Woodward). There is such exaggerated peristaltic contraction of the rectum and lower portion of the colon that the patient goes to stool from thirty to two hundred times in the course of the twenty-four hours, or sits there for half an hour at a time, straining violently, but passing little or nothing (Dr. Hilton Fagge). The patient is under the delusion that he will pass something that will do him good. The fault does not lie in the irritant to be expelled, but in the irritability of the intestinal muscles. According to Heubner the average quantity of evacuation passed by each patient was found to be only from twenty-eight ounces to forty-two ounces. The great difficulty we have to deal with, then, in dysentery is exalted peristalsis. Ipecacuanha meets the difficulty by acting as an intestinal muscular sedative. A large dose of ipecacuanha stops tenesmus quite suddenly and smaller subsequent doses prevent its return. With a return of the muscular coat to its normal condition the other coats lose their irritability and the accompanying inflammation coincidently subsides. The mucous membrane is then in a suitable condition for the second action of ipecacuanha to come into play—namely, secretory stimulation. We have now to deal with an enteritis, and here ipecacuanha acts in the same way as in bronchitis. Stimulation of the mucous membrane with secretion of mucus is effected by direct action on the peripheral endings of the gland nerves or minute ganglia (Dr. Whitla). Ipecacuanha has the same beneficial effect in dysentery therefore as it has in bronchitis. The action of ipecacuanha on the liver is that of a powerful stimulant. In dysentery the hepatic functions are in abeyance and bile is absent from the stools. Ipecacuanha directly stimulates the hepatic cells, so that very shortly after its exhibition the colourless slimy stools become feculent. In the words of Dr. Ewart, "Ipecacuanha is a non-spoliative antiphlogistic, a certain cholagogue and unirritating purgative, a powerful sudorific and a harmless sedative to the heart and muscular fibres of the intestines." According to this lucid and comprehensive description ipecacuanha is a perfect remedy for dysentery. In a certain proportion of cases ipecacuanha undoubtedly fails. Dr. Maclean says: "Where it fails it is because it has been given too late, when structural changes incompatible with life have taken place in the affected intestine, or from structural diseases of the spleen, liver and kidneys, or the combined ravages of the malarial and scorbutic cachexias." In those cases where ipecacuanha fails when success ought apparently to attend its administration the fault probably is to be found in the diet. For three hours after the first dose of ipecacuanha only a little ice should be sucked and after that a little iced soda-water and milk. Beef-tea or bread, or very light foods, are fatal to the successful administration of ipecacuanha; and to this cause a great many of the failures of ipecacuanha are doubtless to be attributed. On the second day the ipecacuanha can be reduced in quantity and supplemented by salicylate of bismuth, quinine, naphthol and opium.

Milk should still form the staple article of diet. Later on farinaceous foods and soups may be carefully given, but a return to solid meat should be deferred as long as possible. Mr. Chowdhovry[1] remarks "that the large doses of ipecacuanha, which have been found to be of great use in treating the dysentery of India, are often inadmissible by reason of the nausea thereby invoked preventing the patient from taking a sufficient amount of nourishment." Considering that the success of the treatment by large doses of ipecacuanha depends upon the condition of the patient in not taking any nourishment during the period of its administration, the failure in Mr. Chowdhovry's cases was evidently due to the fact that his patients were trying to take a "sufficient amount of nourishment," thereby actually causing nausea and preventing a cure. There are cases where ipecacuanha fails when administered by the mouth which may be very successfully dealt with by ipecacuanha and opium enemata.

REMARKS ON GONORRHŒAL SEPTICÆMIA, OR SO-CALLED GONORRHŒAL RHEUMATISM:

SUGGESTED BY A CASE ACCOMPANIED BY HYPERPYREXIA WHICH PROVED FATAL.

BY B. A. RUGG, L.R.C.P. LOND., M.R.C.S.

THE case upon which these remarks are founded seems worthy of being placed on record, not only on account of the extreme rarity of a fatal issue in a somewhat uncommon complication of gonorrhœa, but also as going to show the real nature of the affection to be septicæmia, depending on an absorption of the virus into the system, in the same way that puerperal septicæmia depends on a similar absorption from the uterus after delivery. There appears to have been great difference of opinion as to the exact nature of the disease. One thing, however, would seem to be quite clear, and that is that it has no connexion with ordinary rheumatic affections. It is true that it principally affects the joints, but is it not possible that the gonococci may have an elective affinity for the neighbourhood of joints in the same way that the germs of typhoid fever and cholera have a similar affinity for the intestines? The late Dr. Hilton Fagge styles the disease "gonorrhœal synovitis," and states that the pyrexia is almost always moderate, and in some instances the temperature remains normal, and that hyperpyrexia is unknown. Of the 126 cases collected by him recovery seems to have occurred in all, though convalescence was often very tedious and protracted. As regards the pathology, he says that it is quite unknown, but suggests that it may be in some way connected with the abundant nervous distribution over the prostatic part of the urethra. However, in view of this fatal case that does not appear to be at all a probable explanation. Yet he mentions on the authority of Petrone and Kammerer, quoted by Eichhorst, that the micrococcus of gonorrhœa has been found in the effused serum of the knees. Mr. Barwell suggested long since that the symptoms were due to the absorption of gonorrhœal pus, and others have held the same view. The hyperpyrexia in this case would seem to point very strongly to the septicæmic origin of the complaint, probably from the actual rupture of some small vein in the urethra, through which absorption took place.

In the case under review the hyperpyrexia came on within a few hours of the death of the patient. Previously the temperature had varied from 100° to 101·5° F., and there appeared no reason to apprehend a fatal issue. The thought occurs, may not a considerable number of cases of hyperpyrexia ordinarily attributed to rheumatism possibly have their origin in gonorrhœa? Is it altogether a mere coincidence that so-called gonorrhœal synovitis and hyperpyrexia of rheumatism should be so very much more common in the male sex? Even in ordinary cases of joint affections associated with gonorrhœa the existence of the latter has in most cases to be inquired for. Patients are usually very averse to the family medical attendant being made cognisant of the fact that they are suffering from the complaint. What is more likely therefore than that when rheumatic symptoms appear they should be reticent on the subject, especially as the discharge either ceases or becomes greatly diminished in quantity? If the case now reported should be held by the profession generally to point strongly to a septicæmic origin of the complaint, would it not be well to discard the terms "gonorrhœal rheumatism," "synovitis," or "arthritis" in favour of "gonorrhœal septicæmia"? At any rate, it would have the effect of clearing the ground for a rational and possibly more successful treatment than exists at present, for if we cannot by any known drug kill the micrococci when they have once obtained access to the system, yet we can avoid doing harm by giving salicylates &c. which do not appear to have any very favourable effect on the disease. If given at the first onset of joint pain quinine in fairly large doses, combined with sufficient opium to control the pain, would on theoretical grounds appear to offer the best chance of success. The fatal result appears to have been due to the fact that the patient was somewhat advanced in years (sixty-two); that it was his first attack of gonorrhœa, and that his constitution was somewhat broken down from long years of alcoholic excess. The armies of the phagocytes, indeed, from their weakened powers of resistance, were worsted in their struggle for supremacy by the armies of the gonococci. Appended are a few notes of the case.

The patient, a man aged sixty-two, came to me on Aug. 10th, complaining of urethral discharge which had existed for about three days. He said that he had contracted the disease on July 31st. On examination there was a plentiful sanguineous purulent discharge; I ordered an alum and Condy injection and an alkaline mixture. On the 12th the discharge was much less, and he experienced very little pain on micturition, but seemed somewhat dejected, and complained of a little pain in the back. During the night of Aug. 13th he suffered great pain in the right wrist, shoulder and knee, and to a less extent on the left side also, being quite unable to move. Later in the day the right wrist became very swollen and inflamed, and there was considerable effusion into the right knee, but without any redness. The left ankle became both red and swollen, the left wrist painful, but not swollen; the soles of the feet painful when touched. The conjunctivæ and sclerotic of both eyes were injected. The temperature at noon was 100° F. I prescribed iodide of potassium and opium. On the 15th the pain was less and he had passed a fairly good night. The temperature at noon was 98·6°. The discharge from the urethra was very slight. The next day the right wrist was more swollen and inflamed, there being still more effusion into the knee, but no redness. Both ankles were somewhat swollen and red, and a slight muco-purulent discharge from both eyes supervened. The pain in the joints was not so severe, but he was unable to move them. The temperature at noon was 100°. On the 17th he did not complain of much pain, but the joints were swollen and inflamed still. Jokingly he said that he should like to go for a walk. He seemed quite sensible, but somnolent. Temperature at noon 101·5°; pulse 120, feeble. I was sent for to see him at 9 P.M. Soon after I left him at noon he had gradually sunk into a comatose condition and had been unable to speak or take any nourishment. At 10 P.M. he was in a deep coma. Temperature 107°. He died an hour later. It is to be regretted that no proper bath was available, and also that no post-mortem examination could be obtained.

Wood-green, N.

[1] THE LANCET, Nov. 2nd, 1889, p. 901; quoted by the Year Book of Treatment for 1891.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

A CASE OF POLYDACTYLISM.

BY G. SYMERS MILL, M.B., C.M. EDIN.

THE following case may be interesting to the medical profession, as it is one of the greatest curiosity.

I attended M. S—— during her confinement. She was a strong and healthy woman and had a perfectly normal labour. She was delivered of a strong and healthy male child. On examination, however, it was found that there were six digits on the left hand, there being two little fingers. The adventitious finger was well formed and similar to its fellow, with the exception of its attachment, which consisted of fibrous tissue and skin. The finger could be moved in any direction; it was attached to the ulnar side of the little finger. The other side was perfectly normal and showed no

vestige of an adventitious finger. The great interest of the case, however, is this, that of the six children she has had, four had more than the usual number of fingers, and all the adventitious fingers were to the ulnar side of the little finger. The first two of her children had perfectly normal hands, but the third had four little fingers, two on each hand. The fourth child had two little fingers on the left hand, the fifth had four little fingers, and the sixth was as described above. Another curious fact is that her brother's wife had a child with the condition of webbed fingers. Now, what are we to believe is the cause of this peculiar condition? I can hardly think it could be caused by maternal impression. My opinion is that it occurs in embryo by a process of dichotomy, there being a tendency in the cells which go to form the little finger in the ova of this particular woman to subdivide and form two fingers instead of one, although it seems strange that the first two children had normal hands.

Ossett, Wakefield.

GLYCOSURIA WITH LOW SPECIFIC GRAVITY OF URINE.

BY B. H. NICHOLSON, M.B., C.M.EDIN.,
LATE RESIDENT SURGEON, ESSEX AND COLCHESTER HOSPITAL.

I HAVE lately been attending a lady whose case has interested me much, and after reading a recently published article by Sir Edward Sieveking the extreme rarity of the condition has further interested me, and I think it of sufficient interest to place before the readers of THE LANCET.

A lady aged sixty-five consulted me about two months ago, complaining of what she called "piles"—burning and itching of anus, dragging pains across the lumbar region and depression of spirits. She had been thus suffering for about a month. She had suffered occasionally before from pruritus and eczema of arms, neck &c., and her brothers and father being gouty also, I treated her condition accordingly. The patient stated that she had lost flesh since she had been suffering, and proved this by the misfit of her dress. Her muscles were flabby and wanted tone. The palmar surfaces of the hands were red and glossy and gouty in appearance. Her expression was anxious and worn and desponding from the continued itching and burning, which very much diminished her sleep. The tongue was clean, but rather red and irritable; appetite fair; very little thirst; sinking feeling after food, and occasionally acidity; bowels very irregular, and not moved without aperients; polyuria not marked, getting up twice at night; the heart, lungs &c. normal; the pulse 72, regular, good tension. There was a small papular, eczematous rash on the arms, legs &c., which itched very much. I obtained a specimen of the urine the following day: it was pale and limpid, with sp. gr. 1022, slightly acid. It yielded a trace of albumen with Esbach's solution of picric acid; and sugar was found on testing with Fehling's solution; on rough quantitative examination I found she was passing about four grains in the ounce of urine. On discovering the glycosuria the patient was immediately put on a strict diabetic diet, gluten bread &c.; strychnine, euonymin pill at night, with mineral water in the morning as aperient, and cocaine ointment to relieve the pruritus. In about three weeks she had completely lost her cares and troubles, pruritus and sleeplessness and also every trace of sugar, and the specific gravity went down to 1010. I kept her under strict diet for a month and then gradually allowed starchy food, but absolutely prohibited sugar and limited starch. The patient has remained quite well. The specific gravity of urine ranges between 1010 and 1014. The interest in this case lies in the low specific gravity combined with glycosuria and very little polyuria. I think in these rare cases we must assume the normal specific gravity to be 1010, and in glycosuria conditions 1022. This case shows the absolute necessity of careful chemical examination of the urine even with normal specific gravity.

Colchester.

REMEDIES IN SCORPION STING.

BY R. P. BANERJIE, B.A., G.B., M.S.L.

BETWEEN April and June, 1892, I had an opportunity of treating forty-six cases of scorpion sting. Of this dreaded arachnid (*Scorpio afer*) there are four varieties: (*a*) A dark brown, (*b*) a reddish-brown, (*c*) one the colour of prepared leather (pale yellow), and (*d*) one which is slate-blue. Of these the first and last are the most deadly. The first mentioned has the largest sting (half an inch long) and measures altogether four inches. The last, which is also most to be dreaded, measures from mandibles to telson half an inch to an inch and a half. The larger animal is sluggish and prefers dusty and manure-like soil; the smaller is found in stony places, abounds in the hills, and can endure extremes of temperature. My patients all suffered in the same way, with of course constitutional modifications. The part stung was reddish and œdematous and the pores of the sweat glands were unusually distinct. Severe burning pain was complained of in the part and extended rapidly. In some free perspiration occurred and was followed by much excitement and delirium. Females did not suffer much, and children wept much, but without exhibiting severe local effects. Men of strong build suffered most, and in some instances were very excited; but resolute persons expressed no great suffering. In all cases the joint above the part stung was almost stiff, and in some there were febrile symptoms with severe headache. Ten of my cases were treated with ipecacuanha poultices, as text-books recommend, but only with transient benefit, as I had in addition to use chloroform stupes. This relieved all pain, but the erysipelatous swelling of the affected parts remained, and continued in severe cases for seventy-two hours, requiring still further treatment. In two cases chloroform alone was used and gave instant relief, but swelling remained in this instance likewise. In five cases hydrate of chloral pure and simple was rubbed into the part. It answered well, relieving pain instantly, and with this remedy there was no subsequent swelling. The action of chloral was, moreover, less evanescent than that of chloroform. In order to use it in a more convenient and more rapidly absorbable form it was liquefied with the addition of camphor (three parts of chloral and one of camphor), and to render its action still more rapid the part was punctured with a pin or needle before its application. Menthol-camphor, and butyl-chloral-camphor were also found efficacious. Without wishing to depreciate the value of other methods this treatment, which I found successful in twenty severe cases, will, I trust, have a more extended trial from the profession in the tropics, in order that its value may be determined and its efficacy established.

Pachbudra, Rajputana, India.

DEATH FROM THE IRRITATION OF ASCARIDES.

BY W. HENRY HILLYER, L.R.C.P. LOND., M.R.C.S.

ON Friday, Sept. 16th, I received a message to visit a child at a village some three miles off, who was said to have vomited worms and to be very ill. Having other, apparently more urgent, cases to attend, I did not see her until some three hours later, about 1.30 P.M. The patient, a child aged five years and a half, was lying on her back, half unconscious, with eyes wide open and dilated pupils. The conjunctivæ were almost insensitive; the skin was cold and clammy; the temperature in the rectum was 99·8°; the pulse was imperceptible at the wrist; the apex beat was fluttering and difficult to count, but was at least 200; the right hand was tightly clenched and there was some difficulty in getting the mouth open; the abdomen appeared normal. There was no distension and no lump could be felt on palpation. There was no specially tender spot, but the child moaned a little on being touched. The tongue was slightly furred and red at the tip.

The history of the case was as follows:—The child had never been very strong, but was in her usual health until the morning of the 15th, when she complained of severe abdominal pain. A dose of castor oil was administered, which was immediately returned, and with it three round worms. No further vomiting occurred, nor any action of the bowels, which had acted naturally the previous evening (the 14th). No worm had ever been passed per rectum. Since the vomiting of the worms the child had lain "just as you see her now," and had not complained of any acute pain, but moaned occasionally. She had never had any convulsions. I administered three grains of santonin, with three grains of calomel (which I had brought with me), but the child died ten minutes later without any change of symptoms.

On making a post-mortem examination twenty-two hours after death I found the small intestine slightly distended down to a point fifteen inches above the ileo-cæcal valve

where a mass of worms could be felt freely movable in the ileum. Below this point the bowel was collapsed and quite empty, except for two or three damson stones in the colon. The peritoneum covering the small intestine was slightly congested in patches, but not more so in one part than another. On opening the gut I found forty-two ascarides, of which eight were rolled together in a solid mass at the point noticed in the ileum, occluding but not distending the intestine. There was no perceptible narrowing of the gut at this point and no sign of intussusception. The mucous membrane was intensely congested throughout the small intestine, more especially about the occluded point. The stomach was empty and normal, and nothing abnormal was discovered in the lungs, brain, heart or any other organ.

The interest of the case centres in the question, "What was the immediate cause of death?" The symptoms were not those of acute obstruction, but rather of aggravated irritation of the bowel, and this was confirmed by the post-mortem appearances. It would appear as if the irritation had been sufficiently powerful to cause death from shock without the supervention of actual inflammation. Cases of death indirectly caused by ascarides, as by their escape into the abdominal cavity &c., have been frequently recorded, but I believe that a case of death either from the direct effects of their irritation or from obstruction by them must be exceedingly rare.

Buckden.

REFLEX SPASM OF GLOTTIS FOLLOWING DISTENSION OF STOMACH.

BY SURGEON-LIEUTENANT B. G. SETON,
SECOND PUNJAUB INFANTRY.

A MAN in the 2nd Punjaub Infantry, a Tusufzai Pathan, was admitted to hospital on the night of Aug. 19th, with symptoms of laryngeal spasm. The patient had been on duty in an outlying fort for some days, and had been unable to get meat during that time. On his return to Fort Mastan on the evening of the 19th he ate a large quantity of very tough goat meat in pieces found subsequently to vary from four inches to seven inches and a half in length. This meat was uncooked. He then drank a large quantity of water. After his meal he sang for about an hour, at the end of which time he noticed occasional pain in his larynx and cough. This was gradually succeeded by dyspnœa, which finally prevented his sleeping, and at 1 A.M. he was taken to hospital.

On examination, beyond distension of abdomen, nothing was visible. As far as could be determined the obstruction to breathing was in his larynx. His speech was whispering and quite altered in quality. He also complained of some pain over the hepatic area. Hot fomentations were applied to his larynx, and occasional inhalations of chloroform were given, but their effect was transitory. No emetic could be administered as the spasm prevented him swallowing. At 2 A.M. counter-irritation was attempted, and blisters were applied along the course of the vagi, and cupping over his stomach repeatedly performed. The result was well marked in about half an hour, the spasms stopping for a time and then recommencing. Finally an emetic was given, and about a pound and a half of meat vomited. From this time his symptoms improved still more, though for three days he had a spasmodic laryngeal cough. Hepatitis came on the day after his meal, but was easily cured. No laryngeal examination could be made, as there was no instrument for the purpose at hand. It is important to note that when once the laryngeal symptoms began to abate the patient could swallow freely, so that direct pressure on the larynx by a mass of meat in the œsophagus was out of the question; while the marked effect of counter-irritation of the vagus seemed to point to the symptoms being due entirely to reflex irritation from the stomach. On Aug. 23rd all his symptoms had ceased.

Fort Mastan, Samana, Punjaub.

PUBLIC DISPENSARY, FALMOUTH.—The medical report for the past year states that 456 patients had been treated during the twelve months. As far as known there were ten deaths, 104 cases cured, 300 relieved, 22 results unknown and 20 under treatment. The report concludes with the remark: "Very little sickness, and remarkably little of an epidemic character."

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se compare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

TWO CASES OF ROTATORY DISLOCATION OF THE PATELLA.

(Under the care of Mr. WM. ANDERSON.)

WITH regard to these cases Mr. Anderson has pointed out that they derive importance from their comparative rarity and from the extreme difficulty sometimes experienced in their reduction. In the published observations by Streubel about one-sixth of the patellar dislocations were rotatory, and of these about two-thirds were turned with the articular surface outwards, as in the examples now recorded. The mechanism of the displacement is by no means clear. Sometimes the accident is attributed to a blow, at other times to an attempt to recover from a false step, at other times to a fall, but there can be little doubt that in all it is a sudden and irregular contraction of the quadriceps that is the main factor. In Case 1 the patient felt the bone twist out of place while he was trying to regain his balance after a slip, and he was confident that he did not strike the knee; while in Case 2, on the contrary, there was a clear history of a blow on the outer side of the knee while the patient was rising from a kneeling posture. It has been found impossible to produce a rotatory dislocation artificially on the dead subject except by dividing the ligamentous structures and actually twisting the bone into its abnormal position by means of a lever introduced behind it, and from this we may assume that in any case mechanical violence applied on the living subject can only act by provoking the muscular spasm, which really effects and maintains the displacement. On theoretical grounds it would be difficult to imagine the extraordinary resistance offered by the luxated bone to the strongest efforts at replacement. Not the slightest impression could be made upon it in either of the following cases by very powerful leverage, although the patient was in a condition of surgical anæsthesia, with an apparently complete relaxation of the voluntary muscular system in general. In one case, quoted by Koenig, the bone is said to have defied reduction after the section of the ligamentum patellæ, and in another even after division of this and the tendon of the rectus also (Wolf). Gaulke succeeded by the use of a carpenter's vice, and others have achieved the end by introducing a lever or a hook beneath the bone through an opening on the capsule. It is probable, however, that the great element of success is to push the anæsthetic until it vanquishes the resistance of the quadriceps extensor, the tension of which persists long after the other muscles have become relaxed; and as adjuncts to this the movement of flexion with rotation appears to be more efficacious than simple extension, and possibly because it draws upon the margins of the twisted bone through the intermediation of the stretched tibio-patellar bands. In the second case no lateral band could be detected, and here neither flexion nor rotation of the leg produced any effect. Should all manipulations, aided by full anæsthesia, fail to reduce the bone, the methods referred to above would be justifiable if carried out with due precautions; but it may be borne in mind that, although some deformity and limitation of flexion would remain where reduction is not effected, a very useful command of the joint may be regained. A female patient once presented herself before Mr. Makins, with a rotatory dislocation of two years' standing, but she suffered so little inconvenience from the defect that it was not considered desirable to interfere. A cast taken from Cases 1 and another from the patient under the care of Mr. Makins, may be seen in the museum of St. Thomas's Hospital.

CASE 1 (from notes by Mr. R. B. Williams).—A. H——, aged fifteen, was admitted into Clayton ward on Feb. 26th, 1892. The patient slipped while walking, and, in endeavouring to regain his balance, the knee gave way beneath him. He says that it was not struck in the fall, but that on rising he found his knee fixed

in the extended position and very painful. When admitted he was a well-grown lad of good muscular development. The right knee was extended and the patella was found to be dislocated, with its outer margin turned forwards and the articular surface outwards, while the inner margin rested between the condyles. The outer border of the rectus was very tense, and a tight ligamentous band extended from the projecting margin of the bone to the inner tuberosity of the tibia. The patella was quite fixed. Chloroform having been given, an attempt was made to restore the bone to its normal position while the limb was extended, but no exertion of force made any impression upon it. The quadriceps still remaining tense, the anæsthesia was pushed further, and then on flexing the joint about forty degrees and manipulating the patella the dislocation was reduced with very little effort. The limb was bandaged and placed upon a back splint. Some little effusion into the joint followed, but no other symptoms arose, and at the end of three weeks the patient left the hospital.

CASE 2 (from notes by Mr. J. R. Carver).—A. R——, aged twenty-three, domestic servant, was admitted into Elizabeth ward on April 21st, 1892. The patient while rising from a kneeling position on the floor slipped and struck the outside of the left patella against the corner of an arm-chair. Feeling great pain in the knee and inability to flex the joint, she went to a local practitioner, who recognised the nature of the accident and endeavoured, but unsuccessfully, to reduce the dislocation. She was then brought to the hospital. The patient on admission was a stout but somewhat unhealthy looking young woman. On examination of the knee the patella was found to be dislocated, with its articular surface turned outwards, the position being identical with that in Case 1. There was strongly marked tension of the rectus, but the tibio-patellar band seen in the last case was not apparent. After the administration of chloroform attempts at replacement were made, first during extension and afterwards by flexion and rotation of the leg, but although considerable force was exercised the bone was absolutely immovable. The quadriceps still remained very rigid although the rest of the muscular system appeared to be relaxed, but on pressing the anæsthetic further the tension diminished, and during a gentle manipulation, while the knee was extended and the thigh flexed, the bone returned to its place with a sudden spring-like action. The after treatment was the same as in the previous case. The patient was discharged at the end of a fortnight.

VICTORIA HOSPITAL, HULL.

OSTEOMYELITIS OF TIBIA; RESECTION; MULTIPLE (SEPTIC) EPIPHYSITIS.

(Under the care of Mr. ALFRED PARKIN.)

THIS case illustrates well what is now by no means a common form of bone pyæmia. The original mischief in the tibia undoubtedly gave rise to suppuration in the elbow-joint, probably, as afterwards found out, by a deposit in the lower epiphysial line of the humerus; and subsequently affections of the other bones resulted, from similar depositions of embolic foci, so that in all five bones and two joints became involved. It was remarkable how few symptoms there were to indicate what proved to be extensive mischief in each case. Slight swelling about an epiphysial line and around the epiphysis was the first thing noticed; pain or tenderness on pressure only developed late, and it was impossible to be certain of the affection of any one bone until a portion of the compact tissue had been removed by a gouge. Drilling the bone was useless, the caseous matter being too thick to escape in this way, and yet if that caseous matter had not been removed the chances of recovery would have been small.

R. P——, aged ten, was admitted to the Children's Hospital, Hull, on Jan. 25th, 1892. He had been ill and in bed about three weeks suffering from a bad leg, the result of a kick. On admission he was pale and emaciated and complained of pain in the left leg, which was swollen. Over the centre of the tibia there was a sinus discharging pus freely, and around it much redness and œdema, with marked thickening about the upper two-thirds of the bone. The left elbow-joint was swollen and very painful, with fluctuation behind. Evening temperature 103°.

Jan. 26th.—The tibia was explored and a large part of the shaft found bare and yellow. A portion of the whole shaft (five inches in length) was removed. The periosteum around it had begun to form new bone, which lay in isolated plates on the walls of the cavity from which the dead bone was removed. The medulla of the removed bone was full of pus of an offensive odour. The resected ends of the tibia were scraped out and the cavity well drained. The left elbow-joint was opened and a quantity of pus escaped. The cartilages felt firm and movement was quite free and smooth, so the joint was irrigated and drained.

Feb. 3rd.—The temperature, which had come down after the operation, has for the last two evenings been 104°. A large abscess over the external condyle of the left humerus was opened and drained. It did not apparently communicate with the elbow-joint.

22nd.—The temperature is still 101° or 102° at night. For the last six days there has been slight thickening around the head of the right ulna. Not the slightest tenderness on pressure, merely a diffuse swelling. The swelling has been explored and the bone drilled without result. On removal of a part of the compact tissue the medulla was found to be full of caseous matter extending along the lower third of the bone. This caseous matter was all scraped out.

28th.—The right tibia near the ankle is swollen and tender on exploration. The bone is found to be very soft and the medulla easily opened up at the epiphysial line. Pus was found running in different directions along small channels in the bone, some of which extended almost to the ankle-joint.

13th.—For the last three days slight thickening has been noticeable around the lower end of the left radius; to-day a little tenderness is present on firm pressure. The general condition of the patient is excellent. The left radius was explored and the lower end found to be full of pus, which had burrowed through and in front of the bone. A part of the lower end of the radius, including a portion entering into the wrist-joint, came away quite dead and devoid of articular cartilage.

April 2nd.—Marked thickening shows itself over the upper end of the right humerus. There is slight pain on pressure, but no redness or œdema. On exploration an aperture at the epiphysial line was found, and from this a large cavity full of broken-down material extended upwards into the head of the bone, nearly to the articular cartilage, and downwards for about an inch along the medulla. The left elbow-joint was excised on the supposition that it was a centre of infection; the cartilages were soft and not easily raised; extensive caries was found in the olecranon fossa.

18th.—General condition of patient excellent. A large abscess over the external condyle of the left humerus was opened and drained. The patient can now walk quite well and without limping; left leg quite straight; a firm mass of bone occupies the situation of the part of tibia removed.

25th.—The temperature is now normal, all the wounds healing up well.

June 10th.—Went to a convalescent home. Good movement of left forearm and hand and the muscles are increasing in size. Active flexion of forearm to an angle of 30°, extension to 135°; pronation and supination of hand 90°. Excision wound quite healed. Good movement at left wrist-joint; other wounds practically healed.

The case is an excellent example of the results of epiphysitis or, as some would call it, par-epiphysitis, the mischief readily extending along the epiphysial line to the outside of the bone, along the medulla, into the epiphysis or into the neighbouring joint. Fortunately in each case the disease was controlled before any one of the epiphyses had become separated, and there is no doubt that in similar cases life can only be saved by a ready resort to operation as soon as any swelling is detected. The mischief extends so very rapidly that it is worse than useless to wait until pain or tenderness appears, not to mention redness or œdema. A swelling about an epiphysial line is in itself a sufficient indication for exploration, and it will be strange if in any such case the extent of the disease is not found to be much greater than anticipated. Another feature in this case was the rapidity with which new bone was reproduced after the removal of five inches of the tibia. In about nine weeks the patient was able to walk quite well, and yet at the first operation the periosteum lining the cavity was only covered here and there by a little plate of bone. Anyone who has seen and smelt the yellowish-green material filling the centre of a long bone affected by osteomyelitis will recognise the magnitude of the danger to which a person is exposed until that bone is removed; and, when to this is added the factor that the sooner all dead bone

is removed the sooner can the periosteum begin to produce healthy bone, it is evident that we have here two powerful arguments in favour of early bone resection in such cases. It is only by prompt eradication of all septic foci, so preventing further (perhaps visceral) dissemination, that we can hope to save the life of the patient, or avoid months of troublesome suppuration with its attendant dangers.

Reviews and Notices of Books.

Diseases of the Nervous System. By JEROME K. BAUDUY, M.D., LL.D. Philadelphia: J. B. Lippincott Co. 1892.

THIS is a book of 350 pages, the second edition of a work published in 1876. A second volume is promised in which brain diseases, spinal cord conditions and peripheral affections will be discussed; so that the work when completed may be expected to be very comprehensive. From the volume before us it is not easy to discover the plan on which the book is framed. It consists of nineteen lectures, and of these no less than eight are devoted to the subject of insanity in its various phases. We may say at once that the book is somewhat disappointing both as regards matter and style. However necessary or justifiable the presence of lengthy quotations from more or less classical works may be in a systematic treatise they are quite unsuitable, we think, in a work cast in the form of lectures, and the impression which such an arrangement conveys is that the author has not taken the trouble to assimilate the various views which have been stated, but has been content to transfer to his pages, with due acknowledgment of course, extracts from the numerous works he has consulted. The result of this is a want of conciseness and cohesion in the matter and makes it difficult for the reader to arrive at the author's own views, which are evidently the result of large experience and acute observation. As we have said, no less than eight lectures deal with insanity; the other eleven are devoted to the consideration of anæmia and hyperæmia of the brain and affections of the cerebral meninges. In the next volume we hope the author will do himself greater justice than he has in the one before us.

Les Troubles du Langage chez les Aliénés. Par J. SÉGLAS. Paris: J. Rueff et Cie. 1892.

IT is unnecessary to do more than indicate the scope of this valuable monograph. The subject with which it deals interesting scientifically is also of great practical importance, and the author is to be congratulated on the manner in which he has done his work. The book is divided into three parts, prefaced by an introduction and two preliminary chapters. The first part deals with abnormalities in spoken language. These are discussed under three heads—viz., abnormalities in speech the result of intellectual disturbance; abnormalities of speech with disturbance of the speech function proper; and troubles in talking. Similarly, written speech is discussed on analogous lines, and finally imitative speech. This brief *résumé* of the contents will give an idea of the completeness of the plan of the work; perusal alone will reveal the excellence with which it has been carried out.

Die Mikro-organismen der Gärungsindustrie. Von ALFRED JÖRGENSON. Dritte neubearbeitete und vermehrte Auflage. Mit 56 Textabbildungen. Berlin: Verlag von Paul Parey. 1892.

IT will be remembered that in 1889 an English translation of Jörgensen's work, edited by Dr. G. H. Morris, was placed in the hands of students of bacteriology; this was exceedingly well received, and very rightly so, as it gave an account of the processes of fermentation as applied to brewing such as had not hitherto appeared in our language. It contained much matter that was not given in the original, but was still not so fully up to date as the second German edition, which appeared in the same year. So successful has the book been abroad, and so greatly in demand, that we have now before us a third German edition. The original work is so well known that little need be said in its praise. It has, since its first appearance, been the standard reference book for those engaged in industries in which fermentative processes play a part, and it certainly promises to retain its position since it has been brought up to date. Not only is the text expanded and corrected, but the illustrations are very considerably increased in number. This is specially noticeable in the section devoted to the Multiplication, Spore Formation and Sprouting of the Saccharomycetes—a section which will well repay perusal by all students of botany and bacteriology. It may be added that, though this work was written expressly for the technical student, the subject matter is treated in such a thoroughly scientific manner that parts of it might almost be used in place of a biological text-book. A short *résumé* of work initiated or influenced by Hansen's researches is given in a supplementary chapter, and a very full bibliographical list is appended.

The Hygienic Treatment of Consumption. By M. L. HOLBROOK, M.D. London: L. N. Fowler, Ludgate-circus. 1892.

THIS is a popular exposition of the causes, prevention and general hygienic management of phthisis. It is written for the patient, "as the author believes he can under most circumstances do most for himself, and also be better able to coöperate with his physician at the same time." Medicines are ignored, the author believing that "at most little benefit can be derived from them, and a reliance on their supposed virtues is sure to attract (? distract) the patient from the remedies here recommended." After a brief consideration of the causes of phthisis the author deals at length with the means to be taken for enlarging the chest, for promoting respiratory power, for strengthening and hardening the constitution &c. The questions of food, exercise, clothing, house hygiene, climate and travel and the cultivation of brain power are passed under review. Much of the advice given is sound and sensible, and such as every physician of experience is in the habit of giving to his phthisical patients. The two chapters on vocal exercises are the best in the book, and are worthy of the attention of invalids. There can be little doubt that much remains to be done in the direction of special pulmonary exercises, and that singing and reading aloud can be most advantageously used for this purpose. The subject of climate is very briefly handled, and nothing new is said regarding it. Dr. Holbrook praises highly the region around Florence (Arizona) and Sevier Valley in Utah as valuable sanatoria for the poitrinaire. The author is a great believer in "psychic influence" and the cultivation of the will, and relates several anecdotes of patients who, learning that they were affected by phthisis, resolved to get well, and succeeded largely, he thinks, by sheer will force. Perhaps owing to its popular aim the work has little scientific value. The physiology is often hazy, and many important points are slurred over or dismissed in a vague sentence or two. Here and there occur passages that excite a smile. Thus we are told that "what is called magnetic treatment has its value if taken once or twice a week, provided a healthy person gives it" (p. 211); and in choosing a house, Dr. Holbrook, among other instructions advises the patient to inquire "if any room is haunted" (p. 142).

La Débacle. Par ÉMILE ZOLA. Paris: Bibliothèque Charpentier. Pp. 636. 1892

ENGLISH readers have not become enamoured of M. Zola's realistic literature, and we remember that not so long ago the liberty of one of Her Majesty's subjects was imperilled for

doing into English some of this writer's most popular novels Stung apparently by the criticism that he could not write a clean book, M. Zola gave "Le Rêve" to the world, expressly for the Young Person, and now "La Débacle" has well proved itself worthy of criticism by its number reaching in a few weeks 120,000. One of the first incidents having an interest for medical readers in the novel is pictured as occurring before Sedan, a child of ten being unable to be transported to the rear because he is suffering from typhoid fever. His devoted mother remains with him, and is killed on a doorstep by a stray shell. The poor child, in raging fever, begs piteously for water, but his hearers are too intoxicated by fighting to pay the least attention to him. As the battle proceeds soldiers overcome by fear are described as losing control over their sphincters, while Napoleon makes heroic attempts to disguise his sufferings, and is rewarded for his courage by nights of torture only relieved by groaning. A first dressing place is formed for the wounded, civilians and ladies are pressed into the service to roll bandages, and improvised splints for fractures are described. In Sedan itself a station hospital was established in a convenient warehouse, and some thirteen pages are devoted to a faithful description of the operations conducted there by Surgeon-Major Bouroche. Those who remember the carnage of Sedan, Metz, Plevna and Shipka can well sympathise with the operator who, without adequate assistance, in choosing suitable subjects for the table, had to turn a deaf ear to most of those who were slightly wounded. In an atmosphere nauseated by blood and chloroform, surrounded by the dying and the dead, he disarticulates a shoulder by Lisfranc's method in thirty-five seconds, then amputates a leg by the circular method below the knee, taking care to divide the skin two inches below the point where he intends to saw the bones. While the operator is dividing the muscles from the ibia and fibula an attendant whispers in his ear that the next operation, "the arm," is dead. "Ah, well! bring the next one—the jaw." As the operation is being finished a shell bursts in the courtyard, completing the terror of the wounded, the bearers and the amateur assistants; and so the scene at the shambles continues till nightfall, and again the following day, till at last the chloroform is exhausted and the stern enemy will allow none to be admitted into the town. The surgeon-major is beside himself with fatigue and vexation, as he has 400 wounded to treat and his entreaties for help have only brought him one young assistant. The contagion of fear among young soldiers is well described, and we are irresistibly reminded of scenes even better told in Tolstoi's war stories. In another chapter we can easily picture a handful of French troops caught in a wood near Sedan and peppered so hotly by the enemy's fire that most of the little band are killed or wounded, and many are the execrations on the sun, which seemed never to be setting and never to be ending the dangerous day. The chief object of the author is to show that though the bulk of the French were brave enough their officers were hopelessly ignorant, ill-prepared, and unfurnished with maps of France, though they all had survey maps of Germany. One general ordered his men to cross the Meuse, the Moselle, or "whatever other river it was in front of them." After the fall of Sedan thousands of French prisoners were encamped on a peninsula formed by the Meuse. Here they suffered terrible privations from the failure of the German commissariat; so that eventually the hero and his comrades were driven by hunger to kill a dying horse with a penknife, by stealth, and eat it while half raw, without salt, bread or biscuit. Their stomachs fortunately refused this doubtful food, weakened as they already were by dysentery consequent on drinking river water poisoned by numberless corpses of men and horses. A few days later one of this company was suspected of having a secret supply of food, chiefly because he had ceased to complain of hunger. Three of his comrades, by this time wholly brutes, found him eating half a loaf of bread, chased him, and eventually the least human of them killed him with the knife as he had killed the horse shortly before. It is satisfactory to note that the murderer, after bolting the bread, was shot by the sentries while trying to escape by swimming the river. The hero escapes from these dangers, finds his way into Paris, deserts there, and is eventually bayonetted by his chief friend, who does not recognise him in a Communist blouse. The friend was shot in the leg, however, before Paris was invested, and a long illness resulted, during which he was hidden on a French farm and tenderly nursed by the hero's sister, whose husband had been killed before her eyes by the Bavarians. The details of the wound are described with the care and technical knowledge for which M. Zola is justly remarkable. "Jean's wound healed extraordinarily slowly, the drainage-tube not always yielding laudable pus, which would have justified the doctor in operating, while the patient gradually weakened, obstinately refusing any operation for fear of becoming crippled." However, patience and good nursing, with a splendid constitution, pulled him through, and away he went wholly in love with the widowed nurse. Less fortunate than this were many of the wounded, who were found ten days after the fighting with their wounds alive with maggots. What wonder that they succumbed later to septicæmia, dysentery, typhus fever and hæmorrhagic small-pox. The medical descriptions are wonderfully accurate, though we may venture to doubt whether the delirious, dying of pneumonia, were wracked by terrible coughs. "Every day, at the dressing hour, the doctor examining the wounds was distressed to find bluish marks on some poor devil's skin, the sign of hospital gangrene." In spite of free amputation the patient was soon found in "the condemned ward, where he breathed his last, his body already dead and practically a corpse before the final dissolution." The book faithfully describes the treatment of wounds as it was on battlefields and in crowded hospitals in 1870, before the days of antiseptic surgery. There is no mention of the help rendered at Sedan by the Anglo-American ambulances. There is much in "La Débacle" to entertain both professional and other readers, and we shall be interested in the future in seeing how M. Zola treats the subject of the supposed cures during the Lourdes pilgrimage, a study on which, we understand, he is at present engaged.

The Holiday Annual, a Handbook of Practical Information on Holiday Topics. Edited by A. B. C. London: Causton and Sons, 9, Eastcheap, E.C.

ANNUALS of this kind are among the many indications of the enormous development of holiday travel in these days. The annual before us contains papers on Spain, France, Switzerland, Arcachon, Lakeland, the Norfolk Broads, Dublin as a holiday centre, Kairwan "the holy," Penmaenmawr, North Wales &c. Here is variety enough for all tastes. The articles for the most part have no pretensions either to literary style or scholarship and deal as a rule only with obvious facts and superficial impressions. But they may be read with advantage by those meditating a holiday tour and may be the means of arousing pleasant recollections of bygone travel on the part of others.

Psycho-therapeutics, or Treatment by Hypnotism and Suggestion. By C. LLOYD TUCKEY, M.D. London: Baillière Tindall and Cox. 1891.

WE have little to add to what we said in our notice of a former edition of this book. It has been considerably enlarged, and contains accounts of interesting cases collected from various sources.

Hoblyn's Dictionary of Medical Terms. Edited by J. A. PRICE, B.A., M.D. Oxon., Assistant Surgeon to the Royal Berkshire Hospital and late Physician to the Royal Hospital for Children and Women. London: Whittaker and Co. and George Bell and Sons.

THIS well-known work of the late Richard D. Hoblyn, M.A., has now passed through its twelfth edition, having been thoroughly revised and brought up to date by Dr. J. A. Price. Many new words have been added to the work, more especially in the department of bacteriology, and a useful feature of this new issue is the addition of dates to the names of eminent medical men mentioned in the work who have passed away.

THE *Veterinary Journal* for August as usual contains a considerable quantity of very interesting matter. The original articles are on "Acute Gastritis in Cattle, commonly known as Grass Disease," by J. Clark, F.R.C.V.S., Coupar Angus; "Diseases of Horses in Mashonaland," by Dr. Rayner, Cape of Good Hope; "Lameness from Enlargement of the Inferior Tuberosity of the Small Metacarpal Bone," by Veterinary-Captain J. A. Nunn, F.R.C.V.S., D.S.O., Principal, Lahore Veterinary College, and Veterinary-Lieutenant L. J. Blenkinsop, M.R.C.V.S., Veterinary Surgeon to the Punjaub Government and Professor at the Lahore Veterinary College; and by the same authors, "The Use of Cocaine in Masking Lameness"; and an article on "Sciatica" by John Scott, M.D.V. An editorial article which will be of more than veterinary interest at the present time, in view of the prevalence of glanders in London, deals with Mallein as a Diagnostic Aid in Glanders; this diagnostic agent has been utilised both in Russia and in France and it seems probable that it might be of some service in London. Reviews, reprints and reports—amongst the latter a report of Mr. T. B. Goodall's paper on the "Nasal Chamber and Facial Sinuses of the Horse," read before the Royal Counties Veterinary Medical Association—will prove of very considerable interest. This paper is characterised by very careful observation and close reasoning and is well worthy of perusal by both veterinary and medical authorities.

Analytical Records.

TABLOIDS OF COMPRESSED RESORCIN AND TABLOIDS OF COMPRESSED ICHTHYOL.

(BURROUGHS, WELLCOME & CO., SNOW-HILL BUILDINGS, E.C.)

RESORCIN is antipyretic, antiseptic and hæmostatic, and it may be administered very readily and conveniently in the form of the three-grain tabloid which we have recently examined. Resorcin belongs to the group of diatomic phenols, just as pyrogallic acid belongs to the group of triatomic phenols, $C_6H_3(OH)_3$, and is isomeric with pyrocatechin and hydroquinone, the formula $C_6H_4(OH)_2$ being common to the group. It gives a dark violet colour with iron perchloride and with chloride of lime, but the most interesting reaction perhaps is that in which, when treated with sodium nitrite, it produces lacmoid, a magnificent blue colour strongly resembling litmus. All these reactions were successfully obtained with the resorcin tabloid.

Organic compounds of sulphur are invariably nauseous to the taste and smell, and ichthyol is no exception to the rule. Ichthyol, or more exactly sulpho-ichthyolate of sodium, is a bituminous substance obtained by treating with sulphuric acid, and subsequently neutralising with an alkali, the products of distillation of a bituminous quartz (fossil fish remains) found in the Tyrol. By abstracting oxygen from the tissues it becomes a reducing agent of some value and is reputed to exert an invigorating and antiseptic influence throughout the organism, as well as an astringent effect on the bloodvessels; so that its use is suggested in cases where there is dilatation of the capillaries. The tabloids of compressed ichthyol prepared by the above firm consist of the medicament in a massed form, enclosed in a coating of pure cane sugar, and as by this means the objectionable taste of the ichthyol is completely hidden, the usefulness and convenience of this method of administration are again evident. On heating the brown mass in a test-tube it rapidly swells up and gives off tarry oils possessing a strong alliaceous odour. When the drug is ignited with nitrate of potassium it deflagrates brilliantly and yields its sulphur to the potassium salt, so that on dissolving the "melt" in water sulphate is found to be present according to the barium test. Each tabloid contains two grains and a half of ichthyol.

STARCHLESS BISCUITS.

(J. J. CLARK, GOLDSTONE BREAD FACTORY, WEST BRIGHTON.)

An analysis of these biscuits shows that they contain all the food constituents of flour minus the starch. Our own analysis, which approximately agrees with that submitted to our notice, gave the following results: Moisture, 2·51 per cent.; mineral matter (especially rich in soluble phosphate), 5·56 per cent.; albuminoids, 43·47 per cent.; extractives and soluble matter, 30·0 per cent.; fat, 18·46 per cent. Microscopical examination confirmed the foregoing analysis; there was no starch and no bran. The biscuits are exceedingly palatable, crisp and of excellent texture, and from the fact that they contain no glucose-yielding substances may well be included as acceptable and valuable food stuffs in the dietary of diabetic patients.

ARMOUR'S ESSENCE OF PEPSIN.

(MESSRS. ARMOUR AND CO., 59 AND 60, TOOLEY-STREET; AND CHICAGO.)

Laboratory experiments furnished unmistakable evidence of the value of this preparation, inasmuch as it was found to be remarkably active in digesting hard-boiled egg, which it readily converts into assimilable peptone. Notwithstanding this activity, the essence possesses a very satisfactory flavour and odour, and, indeed, in these two respects more nearly resembles a sweet wine than a preparation destined to materially assist digestion. It is acid to test paper, and in appearance might be mistaken for sherry. Armour's essence of pepsin is a distinct advance on ordinary preparations of this class. It may be regarded as a reliable and agreeable form of pepsin wine.

LIQUOR MANGANO-FERRI PEPTONATI.—SAPO EUCALYPTI ET ACID. CARBOLICI.—IMPROVED PATENT SEIDLITZ POWDER.

(HOCKIN, WILSON AND CO., 13-16, NEW-INN-YARD, 186A, TOTTENHAM-COURT-ROAD, W.)

Liquor mangano-ferri peptonati is a clear dark-brown liquid smelling of cloves; it is acid to test paper and contains 0·6 per cent. of iron with 0·1 per cent. of manganese. The iron is in organic combination, as is evidenced by the following tests: Ammonia gave no precipitate and potassium ferrocyanide or sulphocyanide no result till acidified with hydrochloric acid. Ammonium sulphide produced an immediate black precipitate. Manganese was separated and subsequently recognised by the test which depends upon the formation of green manganate when the metal and its compounds are fused with soda, and upon the formation of red permanganate when the alkaline mass so obtained is acidified with sulphuric acid. In spite of the presence of these metals peptone was discovered by the biuret test. It is an ingeniously prepared and reliable product and may doubtless be administered with distinct advantage in cases where the readily oxidisable metals present are indicated. Moreover, it is agreeable to the palate and devoid of styptic taste.

Sapo eucalypti et acid. carbolici, as its name implies, contains a judicious proportion of the readily volatile antiseptic eucalyptus with the less readily volatile carbolic acid. The soap with which these agents are incorporated is entirely free from excess of moisture and alkali, and gives, not too rapidly,

an excellent lather. To the practitioner a soap of this kind is of course invaluable, and obviously it may be used with benefit in the toilet, bath or nursery.

The seidlitz powder is a preparation of the highest order; it is readily soluble in water, effervesces briskly and is not disagreeable in taste. Although it is hardly correct to describe it as being composed of the ingredients of the German Seidlitz Spa, seeing that it contains no magnesium salts, it is equally effective and probably more agreeable.

CORBOULD'S SANITARY WHITING.

This preparation is regarded as sanitary because it is impregnated with camphor. The presence of camphor is pretty evident from the smell, but analysis shows the proportion to be very small. At its best camphor is but a feeble antiseptic. It has a popular reputation for keeping away moths, flies and similar pests, and for this purpose the whiting may be perhaps used with some advantage.

CIDER AND PERRY.

(JAMES HARPER AND SONS, EBLEY, NEAR STROUD, GLOUCESTERSHIRE.)

Cider is a beverage of some antiquity, and when of good quality and in good condition is no doubt a wholesome beverage. As is well known, it is made from the saccharine juice of the apple, just as perry is made from the juice of the pear, and it accordingly contains acids (chiefly malic), extractives (sugar) and salts (the carbonates and phosphates of potassium). The samples submitted to us by the above firm are thus described: 1. Royal Wilding "Harper Brand," 1880 vintage. It yielded the following results on analysis: Alcohol, 2·70 per cent. by weight, or 3·40 per cent. by volume; extract, 8·16 per cent.; and mineral matter, 0·32 per cent. The mineral matter consisted of alkaline phosphate and carbonate and contained distinct traces of iron. 2. Best English champagne perry. This liquor gave the following results: Alcohol, 1·45 per cent. by weight, 1·80 per cent. by volume; extract, 11·00 per cent.; and mineral matter, 0·35. The ash consisted, again, of alkaline phosphate and carbonate, and contained a very distinct quantity of iron. 3. Newtown pippin cider on analysis gave: Alcohol, 0·95 per cent. by weight, 1·20 per cent. by volume; extract, 9·78 per cent.; and mineral matter, 0·29 per cent. The ash was practically the same as No. 1. 4. Best American champagne cider contained 1·95 per cent. alcohol by weight, 2·45 per cent. by volume; extract, 11·26 per cent; and ash, 0·32 per cent. The flavour and general character of Nos. 1 and 3 were of special excellence. As evidence of the genuineness of these preparations it may be mentioned that the acid of the fruit (malic) was successfully separated from each and identified. Samples 2 and 4 contained a distinct though small quantity of an added antiseptic. The samples are evidently prepared with care; they were in excellent condition and agreeably sparkling.

UBONE FOOD.

(BONNECHOSE AND CO., YORK-STREET, LIVERPOOL.)

Ubone food is described as a phosphatic pepto-pancreatised food. However this may be, we found it to consist largely of dextrin yielding 1·63 per cent. of mineral matter abounding in phosphates of lime and potassium, together with common salt. The preparation contains, in fact, more than double the amount of valuable mineral constituents of good wheaten flour. In the face of these results it cannot be doubted that "ubone" possesses highly nutritious qualities of a certain kind, but we should like to have some evidence of the claim that it "digests itself." We emphatically object to the statement that "it supplies all the elements called for, and excludes everything that is objectionable in dealing with the 'scourge' of diabetes." On the contrary, a food such as this, containing as it does a remarkably high proportion of sugar-yielding carbo-hydrate, should of course be rigorously excluded from the diet of diabetic patients, to whom, indeed, it might probably cause very serious mischief.

"THE ETHICS OF OPIUM AND ALCOHOL."

To the Editors of THE LANCET.

SIRS,—As one of the signatories to the document which in December last was sent to every member of the profession, and which in your issue of Sept. 17th is characterised by Dr. Mouat as "one of the most mendacious" he had ever read, I would crave space for a very brief comment on that allegation. It is hardly complimentary, to say the least, to the intelligence of the profession that on a great public question like that of our Indian opium trade its members should be judged incapable of weighing at its proper value any statement which might be placed before them. Neither is Dr. Mouat over-complimentary to himself when he affirms his own consciousness of a grievous deception being practised upon the profession, and yet delays *nine* months to call attention to our extreme mendacity. One is rather inclined to believe that had it not been for Dr. Pringle's pungent criticisms on Dr. Mouat's former letter we might have escaped altogether this late but terrible exposure. In any case it is a little preposterous that four medical men who have spent the best part of their lives in the East, who have had extremely close contact with this opium question, not only in vast numbers of opium patients, but in earnest study of the possible means of removing a great evil, should have a charge of extreme mendacity thrown at them because their opinions differ from those of Dr. Mouat. Dr. Mouat had no right to bring such a charge without attempting to substantiate it. Beyond making the specific statement he does not add one word of explanation. And this, too, in a paper dealing with ethics! Alas, poor ethics!

Let us recall the statements of the maligned document (I have sent an extra copy to Dr. Mouat for his further study). It consists of five paragraphs. The first sets forth the opium monopoly of the British Indian Government; how, according to the fluctuations of the Chinese market, the Government restricts or extends, as it pleases, the acreage of poppy cultivation; how it does this by granting or withholding licences to grow the poppy, and how the whole is manipulated with a single eye to revenue. The second paragraph asserts that the present enormous growth of the poppy, not only in British India, *but also in the native states*, is the result of a policy steadfastly pursued by the Indian Government during the last hundred years, and that the increase of the opium export from a few hundred chests towards the close of last century to an annual average now of 90,000 chests has been due to the one consideration of revenue. Paragraph 3 calls attention to the severe restrictions which, in the earlier days of the monopoly, the East India Company exercised over the sale of the drug in India itself, avowedly to save its people from a dangerous vice; and points out that the Company failed to realise that increased cultivation by the peasantry was bound to lead on to increased consumption in India itself. Paragraph 4 tells us how in 1871 Sir Cecil Beadon testified before a Committee of the House of Commons that with regard to opium consumption in India the only consideration which then guided the Government was to get as much revenue out of it as it possibly could. Sir Cecil Beadon had been Lieutenant-Governor of Bengal and at the head of the opium administration, and knew what he said. The paragraph further points out that besides this diminished sensibility to the evil on the part of administrators a largely diminished revenue from opium sales due to Chinese competition explained a steadily extending sale of the drug (the paper says "all over India," but "in many parts of India" would be more correct), so that the use of opium among our fellow subjects there threatens to become as widespread a curse as it is to-day in China. Paragraph 5 points out that the facility of purchase and practical invitation to it by the signboards of vendors in the public streets not only encouraged the spread of the opium habit, but opened the door in India, as in China, to innumerable acts of suicide, as also to the quiet but wilful murder of little children and to the widespread inoculation of children with the opium craving through the practice of mothers narcotising their children while they themselves are at work; and after quoting the opinion of so distinguished a Chief Commissioner of Burmah as Sir Charles Aitchison on the lamentable effects of British opium policy in Burmah, the paper concludes with an appeal to the members of the profession to join in an expression of opinion on the subject which might bring about a better state of things. Will Dr. Mouat kindly state on what grounds he bases his extraordinary and I must add his unworthy charge?—I am, Sirs, yours truly,

J. L. MAXWELL, M.A., M.D. Edin.

Highbury-park, N., Sept. 26th, 1892.

THE LANCET.

LONDON: SATURDAY, OCTOBER 1, 1892.

THE dilemma of the Metropolitan Asylums Board continues and shows no sign of abatement. The Board is required daily to put a quart into a pint pot, or, at any rate, to find accommodation for a much greater number of cases than it has room for. The Board is not to blame for this run upon its beds. Some may think that the hospitals are attempting too much and making their accommodation too easy and cheap. But the Managers are not to blame; they have simply no option in the matter. Parliament has itself thrown the hospitals of the Board open to London generally, irrespective of class or the financial position of applicants. Consequently the officials of the Board make no troublesome or inconvenient inquiries into the social or financial position of patients. Admission can be gained without any application to the parish authorities (the very poor generally do apply through a medical officer of health) and when gained it involves no social discredit or disqualification. We must all admire the efforts of the Managers of the hospitals to meet the demand; and we may give Parliament credit for thinking that it was doing a wise and benevolent thing in practically opening the hospitals to all comers, on the principle of first come first served. But the unmistakable dilemma in which the Board finds itself compels a distinct reconsideration of the question. On one point there will be universal agreement—that the poor should have the use of the hospitals. It admits of no discussion that a sanitary authority which does not provide the means of isolation for cases of serious infectious disease in houses where isolation is impossible is neglecting one of its primary duties. But it does not follow from this that the sanitary authority should be required to provide isolation hospitals simply to relieve well-to-do families of the inconvenience of treating such cases at home. We have not the means of judging what proportion of the cases actually admitted come under this description. Perhaps Sir EDWIN GALSWORTHY, in his next statement—which is anxiously looked for—will be able to give the public some information on this point. Not very much, we fear, for the Board, as we have said, makes no definite inquiries on the subject. But it can scarcely be doubted that cases which need hospital accommodation are kept out by the admission of patients that could be isolated at home or treated in other institutions on private terms. This is the old case of hospital abuse in a very questionable form. Many simple people think that if only the State takes things in hand all is right, and they imagine that all the evils known as hospital abuse would vanish if these institutions were placed under State control. The dilemma of the Metropolitan Asylums Board does not lend much support to this view. Rather it suggests an indefinite and what might become a demoralising extension of the evils already complained of in the case of voluntarily supported hospitals. Be this as it may, the occasion is one for asking whether the use of the infectious hospitals is to be universal and indiscriminate. If so, it is evident that a far larger amount of accommodation than the present will be needed, for we are only at the beginning of this great experiment. A reluctance to enter hospitals was the prevailing feeling of all but those whose homes were estitute of proper convenience for the treatment of sickness. This had to be overcome, and it will be satisfactory to learn that it has not been seriously impaired by legislation. It may be that the 3823 patients now under treatment in the hospitals of the Asylums Board all come from the very houses which it is necessary to clear of such cases. We should be glad to know that this is the case. If, in consequence of the state of the law, no adequate information can be given of the fitness of cases, so much the worse for the law, and the sooner it is changed the better. What has to be feared is the creation, in classes that should be able to take care of themselves, of a feeling of dependence on the State in every emergency, together with a prodigious addition to taxation; for the demand upon the State will not stop at cases of scarlet fever, but will steadily extend to other complaints far more numerous and more costly. The facts before us at present are sufficiently significant—a wide prevalence of scarlet fever and the public provision for the accommodation of cases exhausted. The knowledge now supplied under the Notification of Infectious Diseases Act and the Public Health (London) Act goes to show that if we are to have no inquiry into the fitness of cases the present accommodation may have to be increased twofold or threefold to meet the demand which will arise when the old reluctance to use hospitals has been overcome.

THE Congress of the Sanitary Institute, which met the week before last at Portsmouth, has served the useful purpose of providing material for discussion on several subjects of general interest. The address of the President, Sir CHARLES CAMERON, contained an interesting account of the progress of sanitation during the Victorian era and showed the advance which had been made in improving the condition of the country, particularly as the result of the passing of the Public Health Acts of 1872 and 1875. But, while looking back on the triumphs of the past, the President did not neglect to point out that these gains had not been equally shared by all parts of the country, and much still remained to be done in those districts which had failed to avail themselves of the opportunities which the Legislature had given them. Sir CHARLES CAMERON dwelt upon the tendency of the people in England to become aggregated in large towns, as many as ten million and a half out of its twenty-five millions living under these conditions. It was therefore surprising that the population of England had a greater longevity than that of France, Germany, Russia, Italy and Spain.

In the sectional meetings a discussion of much importance followed the reading of a paper by Mr. OLDFIELD raising the question whether tuberculosis arises from eating the flesh of animals. The difficulties of attempting to show to what extent the flesh of the lower animals contributes to tuberculosis in man was made evident by the argument of Sir CHARLES CAMERON that the Irish poor, who eat very little meat, suffer greatly from phthisis; while the rich, who consume animal food largely, do not suffer to nearly the same

extent. It does not, however, follow that because certain causes of phthisis may be present in a population it is proper to neglect to take precautions in respect to other circumstances which may give rise to fatal disease. Evidence is undoubtedly accumulating to show that the eating of tuberculous matter, even after such cooking as ordinarily takes place, is attended with risk, and the question which has to be considered is whether the excision of tuberculous masses by the butcher in dressing the carcase is a sufficient precaution, or whether the flesh of a tuberculous animal, even when it is remote from the affected parts, is fit for human consumption. But other points than this have to be borne in mind; it may be that the condemnation of meat, which would result from the acceptation of the latter view, would lead to the deprivation of the poor of a food-supply which is absolutely necessary to them. There is evidently the greatest need of a better knowledge of the amount of risk which attaches to the use of the meat of tuberculous animals and the amount of prevalence of this disease among animals which are used for food.

This object was further considered in connexion with a paper by Dr. NEWSHOLME on Condemnation of Meat of Tuberculous Animals, and a resolution was adopted unanimously expressing the opinion that where a portion of an animal was affected by disease the whole carcase should be condemned as unfit for human food. Whatever view may be taken of this question no one will hesitate to endorse the opinion at which the Congress also arrived, that the abolition of private slaughter-houses in towns is an urgent necessity.

A paper on the Disposal of the Dead led to the expression of opinion of diverse sorts. Cremation was not without its adherents, although the arguments in its favour were based upon possibilities of infection being preserved in the earth which were not supported by any actual experiences of injury occurring from this cause. The difficulty of finding land suitable for the purposes of interment in the neighbourhood of towns was a more potent argument, and Dr. AXFORD cited the town of Portsmouth as an instance where this difficulty had been experienced. Advocates of cremation have the advantage of knowing that the growth of population must eventually increase this difficulty and lead to the more serious consideration of methods of disposal of the dead other than by interment. It may be gathered that the Congress did not regard the question as so sufficiently pressing as to necessitate any collective expression of opinion at the meeting.

A paper by Dr. DAWSON WILLIAMS afforded material for the discussion of the value of Quarantine in limiting the Diffusion of Cholera. Dr. LANE NOTTER properly asked what was being done in the smaller ports, and argued that the strength of our first chain of defence was measured by its weakest link. This is undoubtedly true, but it must be recollected that the complete exclusion of cholera from England is not anticipated. Persons suffering from or incubating this disease must necessarily find their way into different parts of the country, and it is therefore a matter of urgent necessity that every district should adopt those measures which it is now fully understood must be relied upon as the only certain means of protection against this disease. If one of the English ports should suffer severely from cholera as the result of local negligence, it obviously adds to the probabilities that cases of the disease will be introduced into other localities; but even under these circumstances there is no occasion for alarm for those who are provided with an unpolluted water-supply and a system of removal of excremental refuse which prevents the contamination of earth, air and water. Dr. GROVES, in the course of the discussion, referred to the oft-made statement that cholera frequently polluted the course of rivers, and he cited the outbreak of 1866 in London as an instance of cholera spread by a contaminated water-supply. To those who have studied the behaviour of cholera in this country the association of cholera with rivers which serve for transit and for water-supply finds ready explanation.

Regarding the Congress as a whole, it may be stated that the subjects chosen for discussion were fairly practical, and sufficiently diverse in their character to enable all present to feel interest in the meetings. The opportunities thus afforded for exchanging opinions cannot fail to be valued by those upon whom devolves the duty of advising local authorities, and certainly the Congress at Portsmouth must have answered this purpose.

IDIOCRASY, according to the great English lexicographer, is "a peculiarity of constitution," and *idiosyncrasy* "a peculiar temper or disposition of body not common to another." The latter definition would have been even more complete had Dr. JOHNSON indicated that in the term "body" he included mind, for in the English language idiosyncrasy has been so used. Sir THOMAS BROWNE, with that charming self-satisfaction so characteristic of him, remarks: "I am of a constitution so general that it consorts and sympathises with all things. I have no antipathy, or rather idiosyncrasy, in diet, humour, air, anything. I wonder not at the French for their dishes of frogs, snails and toadstools, nor at Jews for locusts and grasshoppers; but, being amongst them, make them my common viands, and I find they agree with my stomach as well as theirs. ..... I feel not in myself those common antipathies I can discover in others. ..... I was born in the eighth climate, but seem to be framed and constellated for all." Before he has finished his idiosyncratic analysis even Sir THOMAS BROWNE, however, discovers he has a little weakness, but complacently justifies himself by declaring that he sips in good company. "If there be any among those common objects of hatred I do contemn and laugh at, it is that great enemy of reason, virtue and religion, the multitude; that numerous piece of monstrosity which, taken asunder, seem men and the reasonable creatures of GOD, but confused together make but one great beast, and a monstrosity more prodigious than Hydra." BULWER LYTTON remarks in his essay on the knight of Norwich that he never even mentions the great civil war in his writings, although much of his work was done during that period. We cannot, however, doubt, after the above confession of faith, that our distinguished *confrère* was a "good Cavalier"; and it is interesting to note that he even anticipated THOMAS CARLYLE in his comprehensive, though curt and not very flattering, estimate of the English people. It is in the wider sense in which Sir THOMAS BROWNE used the term "idiosyncrasy" that we purpose dealing briefly with the subject.

A French physician is said to have remarked: "In France we treat the disease; in England you treat the patient:"

and as the general includes the particular we feel disposed to define idiosyncrasy simply and shortly as *the* patient. We believe the experience of practitioners generally will support the conviction that it is unfortunate for all concerned to allow the disease to obscure the patient in considering and treating his case. Had Sir THOMAS BROWNE'S private physician terminated an interview with his patient by singing the praises of universal suffrage he could scarcely have hoped to further the efficacy of his remedies. Our theme then is the patient. There are certain attributes which mankind possesses in common; for example, that mode of force called life and the apparatus which enables that force to act, in which is involved sex and age. But the endless variety which we find when we descend to particulars, such as occupation, climate and environment generally, are already present in the fundamental conditions. Variety and complexity in nature afford, however, no argument against the utility of fact-gathering and classification, and without these there can be no perception of principle or law and the rational conduct based upon obedience to the latter. It is therefore our duty to note details and conditions, physical and moral, in every instance, provided we believe them to exist—in fact, even when the bearing of such is by no means apparent to us. It is, moreover, sound instinct which, *cæteris paribus*, causes patients to prefer the advice of "one who knows their constitution"; that is, of one who has had special opportunities of observing their behaviour under diverse circumstances. Granted that there is a general knowledge of cause and effect as regards many physical and moral excitants, there is also a modified manifestation of these in almost every case. We know this to be true as regards articles of diet, and it influences our treatment of many digestive derangements. A choice of residence has in like manner and in many instances to be determined by the experience of the individual even more than by *a priori* considerations of probable fitness on the part of the physician. It is sufficient to refer to the apparent arbitrariness with which *locality* influences asthmatics who occasionally by accident, and for themselves, select a residence which frees them from long-standing distress. Even diseases which are regarded as having a typical course are modified in the persons of individuals, of families, and even of races. Such modifications may be theoretically explained by an assumed hereditary elimination or want of elimination of susceptibility, whatever that may be, in some such way as animals and human beings undergo a process of acclimatisation. But while we thus recognise effects we are in most cases very far from being certain of causes, and, but for the courage inspired by the grand triumphs of a patient science, are at times tempted, in a more or less hopeless mood, to echo the old cry,

"Felix qui potuit rerum cognoscere causas."

The experience of all must have furnished them with instances of unusual tolerance or of even more unusual intolerance of many drugs, such as opium, mercury, ipecacuanha, and the iodides. The action of the latter has been most interestingly dealt with by Mr. HUTCHINSON in his lectures on Temperament, Idiosyncrasy and Diathesis. In his remarks upon the action of the iodides and bromides he details the protean manifestations of the same agent in different individuals, and the serious and even fatal consequences of sometimes small and often moderate doses of hese drugs form an emphatic argument for that knowledge of *the* patient which we have indicated as so useful to the practitioner.

What is true of physical is true also of moral agencies. The difference (which physiologists have determined to exist in the rate of conduction of stimuli applied to the nervous system in different persons) reveals a difference in physical conditions too subtle for grosser demonstration, which probably lies at the bottom of idiosyncratic reaction, both to physical and moral stimuli. The discovery of differences in the effects of the latter is, however, more difficult than in the case of physical agents. While physiognomy (which LAVATER defined as "the science or knowledge of correspondence between the external man, the visible superficies, and the invisible contents") has not led to results of any great practical value, pathognomy, or "the knowledge of the signs of the passions," the evidences of the reaction of the individual to the ordinary wear and tear of human life, is not without value to the physician. Mere configuration or shape may be racial, and may present no easily associable counterpart in the inner man, or in that inner man of whom the world or even the individual is aware; but the manifestations of the "character in motion" are worthy of study, and may lead to fruitful conclusions. It is related of COLERIDGE that his poetic soul was harrowed by the want of correspondence between his outer and his inner man, but we suspect it was rather that his sense of the beautiful did not find entire satisfaction in contemplating his own visage, than that his countenance was devoid of the signs of his intrinsic nature. BULWER LYTTON has remarked with truth that "noble thoughts make noble faces," and SAMUEL TAYLOR COLERIDGE has given us many noble thoughts. The pathognomist in *him* may have been too exacting when he wrote—

> "That outward forms, the loftiest, still receive
> Their finer influence from the world within,
> Fair ciphers of vague import, where the eye
> Traces no spot, in which the heart may read
> History and prophecy. . . . ."

But the eye may likewise occasionally observe remarkable differences of behaviour in individuals under the sway of identical emotions. Thus one parent may grow visibly more grey during the illness of a child, while the hair of another of like age and equally fond may remain unchanged. What is true of so easily detected a change is true also of less readily detected changes in other tissues, such as skin and fat and muscle. While, moreover, these may be *diathetic* they are no less *idiosyncratic*, for the query, "Kannst du mich lehren von meiner Schatte zu springen?" must always be answered in the negative. Various as is the physiognomy of men there is an essential identity in their emotions. "One touch of nature makes the whole world kin," and community in feeling has its counterpart, though perhaps less evidently, in an essential similarity in the expressions of emotion. Moreover, the modern localisation of motor functions in the brain renders the observation of the expression of emotions, which may become stereotyped, important. The clue to pathognomic diagnosis lies probably within ourselves, as the above quotation from COLERIDGE suggests, provided due weight is given to the influence of easily ascertainable external circumstances, such as nurture, education and work, and the less easily ascertainable facts of personal experiences—circumstances and facts of which the physician should be fully cognisant to be fully useful. With such knowledge he may

estimate to a useful degree both the strain to which a patient has been subjected and the manner in which he has borne it. To few is it given to know, like Sir THOMAS BROWNE, under which "climate" they were born, and many are quite convinced that they were not "constellated for all," but a knowledge on the part of the physician of those agents and conditions which his patient as an individual tolerates best or resents most is of primary importance in the treatment of disease.

THE gradual diminution of cholera at Hamburg and in the north of France, together with the vigilant attitude of port sanitary authorities in England and Wales, tend week by week to improve our chances of escaping any diffusion of cholera this year. We may expect further importations of the disease and we must be prepared to deal with them, but we may with some confidence regard the risk of any cholera prevalence as transferred from this autumn to next spring and summer. Under these circumstances a review of that which has actually taken place during the month—Aug. 25th to Sept. 24th—will be historically interesting, and it will serve to show what are the lines of defence against cholera on which we have relied, and how preventive measures should be applied if we are to rely upon them in the future.

It was on Aug. 25th that the ss. *Gemma* arrived from Hamburg in the port of London with a detachment of Russian Jews and three cases of cholera on board. The three patients were removed to the port sanitary hospital below Gravesend, and, having regard to the extremely suspicious circumstances surrounding the remainder of the passengers, they and the vessel were detained afloat in the river, under observation, for several days; after which they were temporarily provided for in an encampment by the port authority. This later action went beyond the powers actually conferred under the Cholera Order of the Local Government Board then in existence, but the judicious action taken in this matter under the initiative and personal superintendence of Dr. COLLINGRIDGE, the port medical officer, received its justification a few days later, when an additional order was issued to meet the case of such passengers as these—that is to say, of persons whom it is impossible to keep under observation on arrival from an infected place or on an infected vessel, for the simple reason that they have no known home or destination. Dr. COLLINGRIDGE'S action at the time received full public support, and the special approval of the Local Government Board was communicated to him. All three patients died in the hospital and no extension of the disease took place.

Three further importations of cholera took place on Aug. 27th. In two instances the arrivals were at Grimsby; both patients were removed from the infected ship to the port hospital, where they were isolated until recovery, the ship being detained at the mooring ground for purposes of disinfection. The third case was an arrival by ship at Middlesbrough. In this case the sick man was also removed to the port hospital, but he died on the same day. Liverpool was next found to be the seat of imported cholera, for on Aug. 28th four Russo-Jewish emigrants, who had crossed England and got as far as that port, sickened with the disease. They had reached Liverpool by land, and hence they were removed, not to the port hospital on the Cheshire side of the Mersey, but to one of the three isolation hospitals possessed by the corporation as sanitary authority for the city. Two of the patients died and two recovered. Their previous movements were ascertained and every precaution, by way of cleansing and disinfection of their temporary habitation, clothing &c., was taken, and those with whom they had associated were watched for some days, in order to see if any spread or infection had taken place. Happily no such diffusion had occurred. On the same day a German, recently arrived from Hamburg, was found to be suffering from cholera in London. He was removed to the Royal Free Hospital, where he made a good recovery. On Aug. 29th a case of cholera was imported by a vessel into the port of North Shields. This patient was at once isolated in the sanitary hospital, the ordinary preventive measures were adopted and the disease was checked. On Aug. 30th a further case was imported into Grimsby; it was dealt with in the same way as the former was and with a like result. On the same day three patients were removed to St. Bartholomew's Hospital. They had arrived at Harwich by boat from Hamburg, were in apparent health on arrival, and were consequently allowed to land. But soon after reaching the metropolis two of them were found by Mr. HARRIS, medical officer of health of Islington, to be suffering from cholera, whilst the third had diarrhœa. In the end the last case turned out not to be one of cholera, but of the other two patients who were suffering from the disease, one died on Aug. 31st. On Aug. 30th a further case occurred in the port of Grimsby, but the spread of the disease was again checked by isolation and disinfection and the patient recovered. Three cases were also found in the port of Falmouth on the same day. They had arrived by ship from Hamburg, were removed to the port sanitary hospital and recovered. Here, again, measures of disinfection were adopted and suspected members of the crews were kept under observation.

After an interval of four days a case was imported into Tynemouth, the vessel bringing the patient again hailing from Hamburg. This patient was removed at once to the sanitary hospital, where he died next day. On Sept. 5th a fifth case occurred at Grimsby, the patient being, as on former occasions, a recent arrival from Hamburg. This patient died on Sept. 11th in the port hospital. Next day, Sept. 6th, a patient was brought into Blyth by a Hamburg vessel; the patient was isolated and he recovered. Then an interval of ten days elapsed, during which only a few rumours of cases, which turned out not to be cholera, occurred. But on the 16th another case reached the port of London. This case was detained off Gravesend by Dr. COLLINGRIDGE on board the ship in which the man had arrived from Antwerp, and after his recovery the vessel was allowed to proceed up the river. Three days later—namely, on Sept. 19th—a case was imported into Hull from Hamburg. The patient was removed to the port sanitary hospital, where he died; the vessel was sent to the mooring ground for cleansing and disinfection and all needed precautions were adopted. On the same day a vessel arriving from Rotterdam at Harwich brought another cholera case into a fresh port, but the patient was isolated in the port authority's hospital and no further mischief ensued. After another lull a second case reached Hull from Hamburg on Sept. 24th. The man was removed to the hospital, the usual precautions were taken and the patient recovered. Lastly, a doubtful case occurred at Bridgwater. The patient, one of the crew

of a vessel which entered the dock at Sutton Bridge, was on his way to Plymouth on the 26th when he was suddenly seized with symptoms very characteristic of cholera. The vessel came from near Archangel, Russia, and had only touched at Bergen, whence no cholera has been reported. Hence the case must for the moment remain undetermined.

But, excluding this case, it is satisfactory to note that during the month in which cholera has been making its way into our ports twenty-six cases have reached us, and in no instance has the disease spread beyond the actual individuals arriving from abroad. Precisely the same remark applies to two cases at Glasgow and two cases at Grangemouth in the Firth of Forth.

Annotations.

"Ne quid nimis."

THE LOCAL GOVERNMENT BOARD AND THE ROYAL COLLEGE OF PHYSICIANS.

THERE can be no doubt that the correspondence between Sir Hugh Owen, the Secretary of the Local Government Board, and the President of the Royal College of Physicians has led to some misapprehension as to the scope of the instructions asked from the latter body. In Sir Hugh Owen's letter it is stated without limitation that the local sanitary authorities are required to "provide and to dispense without charge medicines and medical appliances for the sick," but a correspondent points out in another column that Section 133 of the Public Health Act empowers the local authority to provide, or to contract with any person to provide, a *temporary* supply of medicine and medical assistance for the *poorer inhabitants of the district*. If this limit had been appreciated by the Royal College of Physicians that body would hardly have taken upon itself to publish general instructions for the management of health in view of the prevalence of diarrhœa and of cholera, and appear to supersede the medical advisers of the Local Government Board, on whom rests the duty of framing and carrying out the regulations which are deemed necessary for the prevention of these diseases. The medicines best adapted to the immediate medical treatment of patients suffering from the disease would have then been the only consideration for the Fellows of the College. The College wisely declines to give instructions for the treatment of cholera. "Every case of this disease requires separate consideration and management; no stereotyped plan of treatment would prove to be either wise or safe, and usually before the choleraic nature of an attack could be established medical assistance would have been procured." But the details concerning the management of looseness of the bowels go much beyond the former recommendation of ten grains of aromatic powder of chalk and opium or five minims of laudanum. It is scarcely hypercritical, we think, to remark that the treatment in its entirety would be somewhat difficult to carry out in the houses or rooms of the "poorer inhabitants," and would necessitate skilled nursing and medical attendance.

STREET DUST, WOOD PAVEMENTS AND CHOLERA.

A SERIOUS accusation has been brought against one of the most popular of many conveniences enjoyed by the modern townsman. The sanitary condition of wood pavement has been called in question, and that with special reference to its influence as a possible nidus for the cholera germ. Placed as we are in the near neighbourhood of ports infected by that disease, we would be the last to discourage any rational sanitary precaution, however trivial it might appear to be. We fully recognise the importance of maintaining at all times as perfect cleanliness as possible on the street as well as in the household; at the same time, we cannot ignore the strenuous and successful efforts put forth in this direction by local vestries and municipal councils, neither can we regard as inevitable the suggested connexion between the dust of wooden or other pavements and the spread of cholera. No such connexion has hitherto been proved in respect of other epidemic diseases which from time to time have prevailed in our cities. Furthermore, we must remember that the development of a given infectious malady requires the initial contact of its particular virus or germ. Now it is, on the whole, a happy circumstance that most of this morbific matter finds its way underground by way of the domestic drain pipe. Infection of street refuse is by no means impossible, but this, in by far its greater proportion, consists only of mud, manure and particles of old wood. Doubtless its purification is always desirable. It is also comparatively feasible if, as often happens, the streets be freely washed with disinfectant fluids. We would advise the vigilant observance of every such method. We confess, however, that in so doing we are instigated less by the dread of a special contagion than by a regard for the permanent advantages of general cleanliness.

SEA-SICKNESS.

MOST of those who have experienced the miseries of sea-sickness, however they might differ in minor details of statement, would agree in ascribing this most dispiriting malady to one main cause—the motion of the ship. In so far the whole medical faculty would concur in their decision. This, then, is the central fact which confers upon the disorder its unique position. It is really not a pathological but a physiological disturbance. It has no natural connexion with dyspepsia. The robust and healthy, by a strange contradiction, suffer from it for the time hardly less than the weak and ill. Its variations of intensity are felt to be counterparts of mere bodily oscillation. Some find relief from it in change of posture, others in active occupation, all more or less when their storm-tossed vessel sails under the lee of land. Custom and use commonly secure immunity. These are circumstances which one and all point to mechanical causation as the source of the discomfort. It is the unaccustomed rise and fall, the jerk and relaxation of loosely attached abdominal viscera, mainly, perhaps, but not alone, of the stomach, acting upon the central nervous connexions, which must bear the brunt of accusation. It follows that successful treatment cannot be guaranteed by any one method or panacea. Recumbency, pure deck air, moderately firm bandaging of the body are all useful. Drugs have their place and their partial utility; but, as we have already suggested, there is no remedy equal to a lee shore. Nothing can be much more depressing than sea-sickness, and for this reason we should strongly advise all weak persons not to encounter, if possible, the risk of its occurrence. It is astonishing how soon and how completely those who are favoured with a fair measure of constitutional elasticity recover from its depression. In their case the benefits of a sea trip may thus, with compensations of air, diet, and appetite, be even enhanced by a few hours of mechanical nausea. It is, in truth, for such persons only that tours of this kind are advisable.

THE WINTER SESSION, 1892-93.

THE winter session of the medical schools throughout England was inaugurated by the opening of Mason College, Birmingham, on the 30th ult., with an address by Sir George M. Humphry. To-day (Oct. 1st) Dr. Bowles addresses the students at St. George's Hospital, the same date witnessing the opening of King's College and the University of Durham.

Most of the schools will commence on Oct. 3rd and many will inaugurate their opening by a dinner. The Middlesex, University College, Westminster, King's College, the London and St. Thomas's Hospitals will all begin their sessions in this way. Dr. J. J. Pringle and Mr. S. J. Hutchinson will lecture at the Middlesex and University College Schools respectively, whilst Guy's Hospital will open with an address by Mr. A. Ernest Maylard, on the subject of "How to remain a Student through Life." Dr. Mercier will preside at the opening of the Westminster School of Medicine, and at St. Mary's Dr. A. P. Luff will address the students. At the Royal Veterinary College the address will be delivered by Professor McFadyean. St. Bartholomew's, Charing-cross and the Dental Hospitals do not open with any formal address, and their example is followed by the University of Durham. In Owens College, Manchester, the address will be given by Dr. W. H. Broadbent; whilst at Yorkshire College, Leeds, and Firth College, Sheffield, the students will listen to Professor W. Mitchell Banks and Dr. Burges respectively. The College of State Medicine will open on Oct. 5th with an address by Surgeon-General W. Robert Cornish, and on the same day the Pharmaceutical Society will celebrate its fifty-first session and its jubilee with an address by the President.

THE BOURNEMOUTH IMPROVEMENT ACT, 1892.

WE have before us a memorandum by Mr. Philip W. Nunn, medical officer of health for Bournemouth, directing our attention to some of the more important alterations in the sanitary laws effected by the Improvement Act of 1892, and we quite agree with Mr. Nunn that Bournemouth is to be congratulated upon the additional powers which have thus been conferred upon its sanitary authority. In many important particulars this Act is an extension of the Public Health Act of 1875. Thus we are informed that by Section 2 power is granted to the local authority to check the spread of infectious disease through defective milk-supply. Although we are not told how this is to be carried out we presume the powers now vested in the Bournemouth local authority are similar to those enjoyed by sanitary authorities in the metropolis under the Public Health (London) Act, 1891, by which the medical officer of health, upon obtaining an order from a justice having jurisdiction in his district, is enabled to inspect dairies, and, if accompanied by a veterinary inspector, the animals also; and, if satisfied that the milk supplied from the dairy has been the cause of infectious disease, to report thereon to the sanitary authority with the view of prohibiting the further sale of the infected product. By Sections 7 and 8 "the corporation may, if they think fit, from time to time provide, or contract with any person to provide, nurses for attendance on any person suffering from infectious disease within the borough, and may charge a reasonable sum for the service of any nurse so provided." No doubt the provision of nurses by the corporation may, under certain circumstances, be highly advantageous; but as we are informed that this clause aims at the arrest of infectious disease, doubtless the sanitary authority will also bring into action with their nurses a system of efficient isolation in the treatment of such cases. By Section 9 persons owning laundries are required to furnish lists of the owners of clothes. This is a most important step in advance, as it puts into the hands of the sanitary authority the power to check the spread of infectious disease through the easiest and widest of all channels. We are strongly of opinion that in those cases where the sanitary authority do not themselves disinfect clothes, bedding &c. the thorough disinfection of all such articles by the patient's friends should be insisted on before removal to a laundry. Section 13 is an extension of Section 124 of the Public Health Act, 1875, the local authority being now empowered to regard any person as having insufficient lodging accommodation and to remove him if in their opinion there is a danger of his spreading infection to other persons in the same house. By Sections 15 and 17 power is granted to the sanitary authority to deal with the drainage of houses built before the passing of the Public Health Act and other Acts. By these sections drains and waste pipes are required to be disconnected from the sewer; and the local authority is permitted to apply the smoke test for the purpose of ascertaining whether the house drain is watertight. We notice that Bournemouth has had in operation for the past fifteen years a system of voluntary registration of houses with the local authority, and that the majority of houses in the town, having conformed to the requirements of the sanitary authority, have been placed upon their register. The large measure of success that has attended voluntary registration will therefore greatly diminish the labours of the corporation in compelling those landlords who have not chosen to accept their invitation heretofore to put their houses at once into thorough sanitary repair. Section 31 enacts that a badly constructed or ill-kept cistern shall be deemed to be a nuisance. By Section 72 slaughtering is prohibited except in corporation abattoirs, when so provided. This is a most salutary regulation, for it may be confidently expected that it will not only ensure perfect cleanliness in the slaughterhouses themselves, and a minimum of annoyance to the public, but, what is far more important, will enable a thorough inspection of meat to be made before being exposed for sale. The corporation of Bournemouth by securing these additional powers have immensely strengthened their sanitary code of by-laws, and we see in the new Act an earnest desire on the part of the sanitary authority to ensure for their town the highest standard of healthiness.

THE ABDUCTOR AND ADDUCTOR FIBRES OF THE RECURRENT LARYNGEAL NERVE.

THE results of an experimental investigation into the functions of the recurrent laryngeal nerve were recently communicated to the Royal Society by Dr. Risien Russell. The investigation was undertaken with the view of discovering whether it was possible to separate the adductor fibres from the abductor fibres of this nerve. It has been long recognised that in organic and progressive affections of the nerve the abductor fibres are likely to suffer sooner than the adductor fibres, but the reason of this is not at all clear. It was suggested by Sir Morell Mackenzie that possibly the abductor fibres were more superficially situated than the adductor, and that this would account for their earlier affection in cases of tumour and of pressure generally from outside. Dr. Risien Russell's experiments were carried out on dogs, the individual bundles of which the nerves were composed being separated and stimulated electrically. The relative irritability of the different bundles was also observed and the bundles were traced by dissection to their peripheral distribution. The abductor and adductor muscles were also subjected to direct observation when excited to action after dissection, and experiments and observations were made on the degenerations following the division of different bundles of nerve fibres. The results of these different investigations show that the abductor and adductor fibres in the recurrent laryngeal nerve are collected into several separate bundles, each preserving an independent course throughout the nerve trunk to its termination in the muscle or muscles which it supplies. It was also found that whereas in the adult animal simultaneous excitation of all the nerve fibres in the recurrent laryngeal nerve results in adduction of the vocal cord on the same side, in the young animal the opposite effect—viz., abduction—is

that produced by an exactly similar procedure. When the abductor and adductor fibres are exposed to the air the abductor nerves are found to lose their power of electrical excitability much sooner than the adductors, and this is true of both young and adult animals, although in the former the abductor fibres retain their excitability longer. It was, further, found possible to separate the adductor fibres rom the abductor through the whole length of the recurrent laryngeal nerve to their termination in the muscles, and also to so accurately separate the two sets of fibres as to be able to produce abduction or adduction, as the case might be, without evoking any contraction in the muscles of opposite function. The complete separation of the two functions was also shown by the degeneration of the muscles related to one function which followed the division of the corresponding nerve fibres, while the muscles subserving the other function remained unaffected The greater liability of the abductor fibres to degeneration is very curious, and no explanation of the phenomenon is forthcoming. Sir M. Mackenzie's theory does not find any support from the investigation under discussion—in fact, it is held to be disproved. The fact that in the young dog the abductor influence is found to predominate makes an explanation even more difficult, unless Dr. R. Russell's view is accepted that the greater power of adduction in the adult is related to the increased power of phonation, while in the young animal phonation is imperfectly developed.

RESPONSIBILITY FOR MEDICAL FEES.

AT St. Helen's a claim has been recently tried of some interest to the profession. It is reported as follows in the *Liverpool Mercury*:—"Dr. Twyford, Dr. Reid, and Dr. Masson sued Henry Stansfield, landlord of the New Market Inn, Naylor-street, St. Helens, for £11 2*s.* 6*d.* for medical attendance on his niece, Miss Caine, who was accidentally burned while working for him in his house. The plaintiffs founded their claim on the fact that when the girl was injured Mr. Stansfield sent for Dr. Masson, who after the first day sent a note to Mr. Stansfield's place by a boy asking if he should still continue to attend, as he was not the family doctor, and got a reply that he was to attend. Mr. Riley, for the defence, urged that the girl was an adult, and presumably could enter into a contract for herself. When the boy came from Dr. Masson with the note it was the girl's mother who answered and not Mr. Stansfield. His Honour said the only evidence against Mr. Stansfield was that he went for the doctor, and they surely were not going to make everybody liable who went for a doctor. As Miss Caine had since married her husband had offered to pay one-half if Mr. Stansfield would pay the other, and the judge entered a verdict against him for £5 11*s.* 3*d.*, with costs." We think Mr. Stansfield has got off very easily and may congratulate himself. The judge's verdict is better than his logic. Surely when the landlord of an inn sends for a medical man to attend a patient suffering from burn contracted in his house, without disclaiming responsibility, he should be held to be liable.

DANGERS OF THE STREETS.

IT is clear that in most cases in which one's personal safety is imperilled by so-called accident the responsibility for its preservation has a double significance. It has a positive and a negative relation. It implies protection against the culpable negligence of others and it also entails obedience to the *caveat* of a rational self-concern. Innumerable circumstances of daily life might provide us with illustrations of our meaning, but for the present we are content with one only We have spoken in former issues of the dangers underfoot which threaten the security of passers-by in every thoroughfare. Trap-doors, coal-cellar plates and other occasions of injury have been repeatedly discussed. Telegraph and telephone wires have likewise been considered. We would now notice another source of danger overhead, in the chain which hangs laden with heavy goods from the arm of a crane in front of so many warehouses. It is, indeed, surprising to note how seldom accidents happen in the working of this convenient and simple apparatus and with what accuracy the binding rope, swiftly and loosely cast about its burden, tightens at the moment of ascent. Notwithstanding, there is no absolute security—far from it—and accidents do happen. Now and then comes a slip and the load falls. The possible risk to *employés* and to casual wayfarers requires no explanatory comment. That incurred by the former is largely their own concern, though this does not of course condone the carelessness of fellow-workmen. The case of ordinary foot-passengers is different. The demand upon their personal caution is less and their title to the fullest external guarantees of safety cannot be denied. We take it, therefore, to be unquestionable that any warehouseman in loading or unloading over the public street must warn off all passers-by from the scene of his operations. A red flag of sufficient size might serve as the usual signal of danger, but surrounding the point of temporary obstruction with a rope barrier would still better secure the end in view.

THE TREATMENT OF TETANUS.

IN the *Therapeutic Gazette* of February, March and April Dr. Braden Kyle gives the results of a series of experiments made on the pathology and treatment of tetanus, in which he concludes that the bacillus of tetanus is an obligate anaerobe, and that its virulence is actually diminished when the organism is deprived of oxygen; that the bacillus grows best at a temperature of 98° F., but that it will grow rapidly when the temperature is as low as 51°. Pure cultures when inoculated induced fatal results in less than 50 per cent. of the cases, and from inoculated animals that died Dr. Kyle was unable to produce tetanus in other animals. In some cases the bacillus was found at the point of inoculation. He considers that the organism is polymorphous; that it is extremely resistant to the action of heat, corrosive sublimate, peroxide of hydrogen and carbolic acid, but that it is extremely sensitive to hydrochlorate of cocaine and to the fumes of bromine. He concludes that the treatment of cases of tetanus may be summed up as follows: "(1) Disinfection of the nidus of development of the bacilli; (2) the elimination of the poisonous products of the bacilli from the system; (3) drugs which are sedatives to the nervous system; (4) excision of the cicatrix."

AN APPARATUS FOR COLLECTING WATER FOR ANALYSIS.

IN collecting water for bacteriological investigation it is often an extremely difficult matter to obtain a number of satisfactory samples, especially from some distance below the surface, without a very great amount of what seems to be unnecessary trouble. In the *Canadian Record of Science*, January, 1892, Dr. Wyatt Johnston of Montreal describes and figures an apparatus for this purpose. This consists of a kind of weighted frame in which a sterilised bottle is placed; the neck of the bottle is grasped by a clamp, and the stopper, which is in the form of a tapering glass rod, is grasped by another clamp and is kept in position by means of a spring. Attached to the clamp holding the stopper is a cord, and the frame is suspended by another cord. When a sample of water is to be taken, a sterilised bottle with its stopper still in position is put into the frame; the whole is then sunk to the required depth, just as is a sounding lead; then the string attached to the stopper clamp is pulled, the bottle fills in from twenty to thirty seconds; the clamp string is allowed to relapse; the springs bring the stopper back into position and the apparatus is withdrawn. The bottles re

commended are the ordinary drop bottles fitted with ground glass pipettes, the two ends of which are sealed in a gas flame, thus converting them practically into glass rods. The apparatus can be used from a boat, from a bridge, or from the shore. Dr. Johnston also makes a very good suggestion—that instead of using Petruschky's flattened flask, the ordinary flat-sided, common white glass phial plugged with cotton wool and wrapped round the end of a wooden toothpick may be used. Such bottles are readily obtained, and the disadvantage is that the glass is somewhat thick, so that it is sometimes necessary to use a correcting lens. They pack well and are invaluable for field work.

NATIONAL SOCIETY FOR THE EMPLOYMENT OF EPILEPTICS.

WE have frequently called attention to the unfortunate condition to which many epileptics, and often their friends, are reduced in consequence of their disease, and it was only recently that we alluded to the opening of Lady Meath's Home of Comfort for Epileptics at Godalming—a most laudable attempt to alleviate some of the miseries which are attendant on epilepsy and similar disorders. From a document before us we now learn that a society under the above name has been formed to provide a home for necessitous epileptics who are able and willing to work, but who are unable to obtain employment on account of their affliction. It is intended to have a series of cottages, each accommodating ten to twenty epileptics. The sexes will be separated and adults and children will also be kept apart. Market gardening, spade and barrow labour, will be the first industries, and as the colony extends other trades and mechanical arts will develop. In this way it is hoped that the institution will be, to a certain extent at least, self-supporting. It will be under medical supervision and entirely undenominational, and while in the first instance intended for the poor, its advantages will also be extended to patients possessed of means, who will be received as boarders. The institution is intended to be conducted on lines similar to those on which the Bielefeld Epileptic Colony has been so successfully organised, and a beginning is to be made with a few male patients. Only money is needed to allow a fair start to be made, and this, it is hoped, will soon be forthcoming. An influential executive committee has already been formed and many have intimated their willingness to support the scheme. The honorary secretary is Miss Burdon-Sanderson, Branksome, Greenhill-road, N.W., and the honorary treasurer Mr. H. N. Hamilton Hoare, 37, Fleet-street, E.C.

BACTERIA IN WOUNDS.

PROFESSOR WELCH and his pupils have for some time been doing very good work in connexion with the study of the micro-organisms found in wounds. In the April number of the *Johns Hopkins Hospital Bulletin* Drs. Hunter Robb and Albert A. Ghrisky publish an interesting contribution on the Bacteria in Wounds and Skin-stitches. These wounds were all in the abdomen or in the peritoneum. In order that as few errors as possible might creep in they adopted the most rigorous antiseptic precautions, carefully soaking the skin with a 1 in 5000 aqueous solution of bichloride of mercury before the operation, cleansing the part with warm distilled water and oleine soap, then washing with absolute alcohol, then with a warm saturated solution of permanganate of potash, followed by a warm saturated solution of oxalic acid, warm sterilised saline solution, Squibb's ether to remove fatty matter, a 1 in 1000 warm aqueous solution of bichloride of mercury, and finally giving a thorough washing with sterilised salt solution. In all cases the peritoneum is brought together by a continuous catgut suture, in order to prevent the infection of the abdomen by means of the skin-stitches. The skin and muscular surfaces are brought together by deep silkworm gut and superficial silk sutures, and the wound is covered with a mercurialised solution of celloidin, 1 in 30,000. A piece of sterilised gauze is then placed over the incision, just enough to cover it. This is saturated with mercurialised celloidin, and sprinkled with iodoform and boric acid, 1 in 7. "Over this a piece of gauze, large enough to protect the incision on all sides, is applied, and covered with the mercurialised celloidin, and the iodoform and boric acid are again used. Finally, several layers of sterilised absorbent cotton are applied and then the scultetus, or many tailed bandage, is adjusted." Drs. Robb and Ghrisky conclude that under these conditions silkworm gut or silver wire sutures contain fewer germs or organisms than catgut, the knot of catgut sutures being specially rich in organisms, consisting almost entirely of a mass of bacteria. Silver wire sutures contain numerous bacteria, but a smaller number than catgut. Silkworm gut is the most resistant and harmless material that they have yet used; it acts as a kind of splint and is very readily sterilised. In forty-five cases examined the superficial stitches contained staphylococcus epidermidis albus in thirty-three; in five of the others staphylococcus pyogenes aureus was also found; in one staphylococcus gilvus only; in two staphylococcus gilvus and albus; in one streptococcus pyogenes with staphylococcus epidermidis albus; and in three streptococcus pyogenes only.

THE MICROBE AND EARLY MEDICAL LORE.

IT is curious to observe how from time to time different people lay claim for their own special school or their own country to the discovery of a bacteriological etiology of disease. The recent Oriental Congress calls to mind Pandit Janardhan's article on "Disease Microbes anticipated in Sanskrit Medical Works," which appeared in the April number of the *Imperial and Asiatic Quarterly Review*. It must be confessed that he does not bring forward anything to prove that naked-eye parasites were the cause of disease, and his illustrations in support of his theory that Indian sages looked upon organic germs as the cause of disease scarcely warrant the interpretations he puts upon them. He depicts the ordinary forms found on many of the older manuscripts and tablets: snakes, scorpions (or something like them), pediculi, star-fish, tadpoles, and curiously enough—as if the draughtsman had had some quaint conceit in his mind—outlines of manikins such as most of us have drawn on our slates during the earlier period of our lives. The article is exceedingly interesting, but we must, throughout, read "worms" or "animal parasites" for microbes, for of the presence of the microbe in the mind's eye of the earlier medical sage there is little or no evidence.

EPILEPSY AND EPILEPTIFORM TIC.

WHOEVER has seen a severe and typical case of facial neuralgia must have recognised the appropriateness of the term, *névralgie épileptiforme*, which Trousseau applied to it. The term was apparently used because of the analogy which the condition offered to epilepsy in the nature of its onset and duration, and not because of any supposed etiological connexion. But, as M. Féré points out in his interesting paper on this subject in a recent number of the *Revue de Médecine*, Trousseau was not unaware of the occasional occurrence of both conditions in the same patient, and he states some facts which had led him to believe that in certain cases epileptiform neuralgia was one of the manifestations of true epilepsy. He instanced the case of a provincial *confrère* whom he had treated for some years for severe facial neuralgia and who had, towards the end of his life, epileptic fits; and that of an American who had

for two or three years suffered from severe attacks of tic with typical attacks of epilepsy. But on the whole he was apparently inclined to think that such occurrences were coincidences, and that the two conditions showed striking differences in the absence of heredity and of mental obscuration in cases of facial neuralgia, and the want of synchronism in the onset of the diseases. But as M. Féré points out, a number of the slighter signs of epilepsy are often present before the typical attacks come on, and in many cases no proof of heredity can be furnished. Further, too much importance, he thinks, may be attached to the absence of mental obscuration, for even in epilepsy such a condition can sometimes only be shown to be present by time measurement, and as pain lengthens the time of reaction a similar condition may be suspected to be present in severe neuralgia. But M. Féré brings forward a fact even more suggestive of a close connexion between the two conditions—viz., the occurrence of epilepsy and epileptiform neuralgia in the same patient, and the disappearance of both conditions under treatment by bromide of potassium. The case is one which had been under his own observation, and, in reference to this particular point, is very interesting.

A BACTERIOLOGIST FOR NEW YORK.

THE Board of Health of the City of New York has, the *New York Medical Journal* states, taken a step that is worthy not only of commendation, but also of imitation by other municipal boards of health. Heretofore the disinfecting corps has consisted of sixteen laymen. This division has been reorganised and is now denominated the division of pathology, bacteriology and disinfection. The chief of the division is to be an expert bacteriologist, and he will have ten physicians under his direction as disinfectors, each of whom has a certain district to supervise. The salary of the bacteriologist in chief is 3000 dols. (£600) per annum, and Professor Herman Biggs, who has been in charge of the Carnegie Laboratory for many years, has been appointed chief of the division.

FEVER IN LONDON.

THE pressure on the beds in the Asylums Board hospitals still continues, and we hear of patients sitting on the door-step at Norfolk House until the ambulance can fetch them away. The scarlet fever accommodation is reported to be exhausted to all intents and purposes, for only some five beds are vacant, and those only for convalescents at Winchmore Hill. In the meantime, the new hospital at Tottenham is being pressed on to completion and it is expected to be ready in about a week's time. This will give the Managers some four or five hundred more beds and will, it is hoped, enable them to tide over the difficulty. There will be some temptation to overcrowd this new hospital, but we trust that the interests of the patients themselves will be considered in this connexion and so undesirable a proceeding avoided. At the meeting of the Asylums Board on Sept. 17th the chairman made an attack upon the Local Government Board, blaming the superior authority for the delay that had occurred in the erection of this proposed hospital and for the general delay in meeting the pressure which existed. Pending any reply from the Local Government Board, it should, however, be remembered that that body is not an initiating or executive authority, but simply a supervising or controlling arm of the State. It is the Managers who have these functions assigned to them, and it is for them to mature in times, when no pressure threatens, those measures of hospital isolation and equipment that may appear necessary in the future. Then it should be recollected that the higher board has other duties to the public besides that of granting assent to the Asylums Board for their doings. In the case of the proposed Tottenham Hospital there was considerable local opposition amongst the residents to its erection, and the Local Government Board was obliged to institute a careful local inquiry before granting its assent. Some delay must therefore have been unavoidable, for which that Board can hardly be held responsible. The large proportions of the present prevalence can hardly be credited with the appellation of a serious epidemic; for the excess over the autumnal incidence of other years is more apparent than real, and due most probably to (1) notification and (2) a greater willingness of better class people to avail themselves of the hospitals (with this feature we have dealt fully in a leading article). In any case, the Managers have an urgent duty before them in grappling with this problem of fever hospital accommodation in London; and we trust that no time will be lost in gradually providing an adequate number of beds for its growing population, taking as a basis the recognised official datum of 1 bed per 1000 inhabitants.

CARRIAGE LIGHTING ON THE UNDERGROUND RAILWAYS.

TRAVELLERS by the Underground Railways are for obvious reasons peculiarly dependent upon the efficient management of carriage lighting arrangements. The time spent by them on their subterranean journeys is considerable. To those who are daily engaged in business in the City the period of tunnel transit each morning and evening would be wearisome indeed but for the page of news; and this again would be a tantalising luxury without sufficient light for its perusal. It is therefore particularly to be regretted that this much-needed convenience is not always adequate to its intended purpose. By way of justification we are told that in order to provide the gas pressure required for better illumination a much larger outlay than is now allowed would be called for. It is also pointed out that occasionally small electric lights may be obtained for the trifling sum of a penny. Here certainly is a grain of comfort, and a cheap one enough. To our mind, however, the question cannot be thus easily disposed of. Sufficient light is a primary necessity, and should therefore be provided at the cost of the railway companies. We might suggest several alternative methods for securing this result. A possible augmentation of gas pressure has already been mentioned. An increase in the number of gas jets—at present two to each first-class compartment—would fulfil the same purpose, though it would also, of course, involve a greater expenditure of gas. Something might likewise be done by increasing the power and ensuring the cleanness and brilliancy of reflectors. Whatever the method employed, however, the responsibility for adequate illumination, we repeat, should certainly devolve upon the company. Light is not to be doled out at an extra charge through an automatic penny slot.

THE DIAGNOSIS OF HÆMORRHAGIC SMALL-POX.

OUR correspondent in the Northern Counties stated in THE LANCET of Sept. 17th, that Dr. Armstrong had informed his local authority that a case of small-pox sent from North Shields to the infirmary at Newcastle had not been diagnosed as such at North Shields, and that it was a case which nineteen doctors out of twenty might not have recognised as small-pox. We think Dr. Armstrong has been rather harshly criticised, and we do not wonder that the local authority has unanimously refused to admit the correctness of Dr. Whamond's charge that he had magnified his own powers of diagnosis as against those of 95 per cent. of medical men. Dr. Armstrong is a busy medical officer of health, and for some weeks past has doubtless been subjected to a strain of official duties in connexion with cholera which is itself an excuse for not having chosen words beyond all ambiguity of meaning. But even as his words showed, "it was a case which nineteen doctors in twenty might not have recognised as small-pox." They would seem to imply no censorious reflection on any

medical man, but only that the case was an exceptional and irregular one, in which diagnosis was far from easy. Van Swieten says: "Physicians who are conversant in practice will, I believe, freely acknowledge that it is not an easy matter to distinguish the small-pox *at first* from any other acute inflammatory disease. They will therefore be cautious how they pronounce upon that head *at first sight.*" This is the expression of the largest experience and profound common sense. The man who comes second—and even a few hours make a difference in these rapidly fatal cases—has an advantage over the man who comes first. Even when the disease is epidemic and practitioners are on the look out for it, and when the course of it is regular, it cannot be diagnosed *at once*. But in the hæmorrhagic form the eruption may not be forthcoming at all, and if nothing is known of the history of the patient and his exposure to infection, it is a case not to be pronounced on dogmatically at first sight. Small-pox has of late years been in such complete abeyance that we are apt to forget its existence and especially its malignant aspects. The Tyne case should have the good effect of putting us all on our guard.

SHORTENING THE ROUND LIGAMENTS.

DR. CHALOT of Toulouse employs a modification of Alexander's method of shortening the round ligaments of the uterus in cases of painful retroflexion. He opens up nearly the whole of the inguinal canal, which enables him to reach the entire thickness of the round ligament even in stout subjects; each ligament is then dissected up to the internal ring, or even into the peritoneal cavity. The replacement of the uterus is not obtained by the support of an assistant, but by direct traction on the two ligaments, each of which is then stitched to the walls of the canal along its entire length. No pessary is used after the operation. The results of this method have given Dr. Chalot great satisfaction.

"WHY WEAR A HAT?"

PERHAPS no article of clothing has been more freely criticised in respect of its utility than that which lexicographers describe as a "covering for the head." Some, instructed by the example of savage races and of others widely different in various ways, among them the leaders of feminine fashion, whose crowns of gossamer may practically be disregarded, would have it that the hatless condition is that most characteristic of mankind. Against their opinion we find arrayed the combined force of civilised usage in every climate. From pole to pole we find that man, if he dresses at all, dresses his head. Even if bootless and guiltless of such minor trifles as waistcoat and collar, he covers the head with some form of clothing. Nay, the very savage, though he may know nothing of silk or felt, will often so decorate his vertex with feathers, or so weave its own natural wool, that not even the conventional European cylinder could protect it more effectually. Surely there must be reason in all this. There is a clearly conscious need which exists not merely in the imagination. It is thus practically admitted that though the head, like any other part of the body, may, after having suffered the attrition of atmospheric variations, become inured to their action, it still loses somewhat in the process. In the first place, it is evident that in this conflict only the fittest can hope to survive. Civilised man will not endanger his chance of survival by risking the experiment. Further, he finds that the inferior animals thus exposed undergo external changes which do not often, if ever, tend in the direction of refinement, and instinctively he shuns the possible return to coarseness and barbarism. He also recognises the fact that, given a wholesome custom in head clothing, the consequent effect will be as healthy as it is becoming. Foremost among the sanitary principles which ought to control usage in this matter are two—the avoidance of any but the lightest pressure, and the admission through the texture worn, or by special apertures, of sufficient air for free ventilation of the head. If these elementary considerations be duly regarded, and sufficient protection be provided against changes of weather, we shall find man the better, not the worse, for wearing his "covering for the head."

BACTERIOLOGICAL DIFFERENTIATION.

THE process of differentiation as regards the methods of action of bacteria is gradually being accomplished, and most interesting experiments have been designed to enable us to study such differentiation in connexion with the action of the tubercle bacillus on the animal body. Koch's treatment, of course, depends entirely for its success on an accurate understanding of this question. In a "Study of Experimental Pneumonitis in the Rabbit," Dr. Mitchell Prudden of New York,[1] continuing an account of his researches on the action of dead tubercle bacilli, suggests that as a result of a careful study of the processes set up in the lungs of the rabbit we may make out three different actions of the bacillus tuberculosis and its products: (1) The action of the protein—which is set free from these organisms as they degenerate in contact with living cells—which sets up cell growth, and therefore probably a reparative rather than a degenerative action; (2) the caseous degeneration so frequently met with in tuberculous lesions he considers may be due to the action of some metabolic product of the growth of the tubercle bacillus, this product being wholly distinct from the cell-stimulating bacterio-protein; whilst their still remains another factor (3), probably "of toxic nature, to which many of the graver systemic effects of tubercular infection are due." This is an exceedingly interesting subject, and one well worthy of further careful study.

THE PUBLIC HEALTH OF ITALY.

AN Italian correspondent writes, under date Sept. 26th:—"The Government continues to display the utmost promptitude in examining every reported case of cholera and giving the results of its examination to the world. The so-called cases of cholera at Capri turned out to be no cases of cholera at all, and the same may be said of a still later announcement as to the appearance of the malady at Nola, in the Neapolitan district of Caserta. This latter case was given with some fulness of detail in the non-professional press, and from this again quoted, with exaggerations, in foreign journals. The following are the facts, taken from the official report of the Government physicians specially deputed to Nola to make the necessary investigation. A woman seventy years of age had died at that place under symptoms supposed to be choleraic, and the leading physician from Caserta performed the necropsy in presence of his colleagues. She was found to have suffered from chronic bronchitis with pulmonary emphysema, coupled with mitral stenosis and general dilatation and atheroma of the heart. There were also indications of chronic nephritis, with general anasarca, while in the intestine there were found some hyperæmia and hæmorrhagic spots on the colon—spots due no doubt to the grave obstacles to the sanguineous circulation. All characteristics of cholera were non-existent, and the symptoms which had deceived the patient's attendants were attributable to her malady in one of its later phases. No circumstance that could explain the appearance of cholera in Nola or its neighbourhood could, on the minutest inquiry, be discovered. Throughout the peninsula and in the islands, adds the Government bulletin, the health of Italy is excellent, the rates of sickness and mortality being lower than for the corresponding statistical periods in recent years."

[1] New York Medical Journal, Dec. 5th, 1891.

ENTERIC FEVER IN THE NORTH OF ENGLAND.

ENTERIC FEVER is reported to be prevalent at Eslington in Durham and at Runcorn near Liverpool. At the former place it is alleged to be due to a polluted water-supply. Runcorn is more or less a home of the disease, which has been made the subject of Government investigation on more than one occasion.

CONTINENTAL ANGLO-AMERICAN MEDICAL SOCIETY.

THE annual meeting of this Society is fixed for Oct. 6th at 4.30 P.M. at the Grand Hotel, Paris. At 7.30 P.M. the banquet will be held at the same place. It was hoped that Sir Joseph Lister would have been able to preside, but unfortunately his engagements prevent his visiting Paris.

FINANCES OF THE MELBOURNE HOSPITAL.

AT the recent annual meeting of the governors of Melbourne Hospital it transpired that the institution was in debt to the extent of £23,000, and there was a general agreement that the hospital could not go on as at present managed. The cost per bed is £112. The matter was referred for consideration and report to the finance and house committee.

SMALL-POX PREVALENCE.

THIS disease still prevails in the provinces, London being apparently quite free from it. Some forty cases a week are being notified, of which the great bulk are being contributed by Warrington and Halifax. Cases still continue to be occasionally reported from Dewsbury, which suffered so much at the beginning of the year. A case has also been reported from Leicester.

THE PORT OF LONDON.

DR. COLLINGRIDGE'S half-yearly report shows an excellent amount of careful and intelligent work done under his auspices. He draws attention to the fact that the Customs have no power to detain a vessel except in the case of cholera, yellow fever or plague, and that the quarantine officers' questions do not apply to esoteric or indigenous diseases, or indeed to any but the above-mentioned complaints. These defects cause great inconvenience in administration, and should be remedied as soon as possible.

FOREIGN UNIVERSITY INTELLIGENCE.

Buda-Pesth.—Dr. Imre Navratil, Extraordinary Professor of Surgery, has been raised to the rank of Ordinary Professor.

Erlangen.—Dr. Beckmann, Extraordinary Professor in the University of Giessen, has been appointed to the chair of Chemistry.

Gratz.—Professor Moeller of Innsbrück has been appointed to the chair of Pharmacology.

Innsbrück.—Dr. J. Nevinny, Assistant to Professor Vogl in Vienna, has been appointed to the chair of Pharmacology.

St. Petersburg.—Military Medical Academy: Dr. A. V. Yakovleff has been appointed Prosector in Operative Surgery. The number of *privat-docentes* at work in the Academy has reached sixty, seventeen teaching Internal Medicine, six Midwifery and Gynæcology, six Nervous Diseases, four Children's Diseases, and a smaller number other branches of medical science. Clinical Institute: Dr. N. V. Petroff, prosector in the Obukhoff Hospital and *privat-docent* in the Academy, has been appointed to the chair of Pathological Anatomy.

Tomsk.—Dr. J. J. Sudakevich of Kieff has been appointed to the Professorship of Pathological Anatomy.

Vienna.—Dr. Georg Juffinger has been recognised as *privat-docent* in Laryngology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Josef Scharff, Director of the Asylum at Brünn and one of the most distinguished alienist physicians in Austria, at the age of fifty.—Dr. José E. Ramos, Director of the Botanic Gardens and Professor of Botany in the University of Havana.—Professor Pilat of Lille.—Dr. Seligmann, Extraordinary Professor of the History of Medicine, Vienna.—Dr. W. J. Porai-Koshitz, *privat-docent* in Dermatology in the University of Kharkoff.—Dr. K. J. Leonoff, formerly senior surgeon of the 8th Russian Uhlan regiment, who was, in addition to being a very scientific man, a great linguist. He was conversant with Hebrew, Arabic, Persian and Sanskrit, and with nearly all European languages. He died at Yalta, in the Crimea, at the age of sixty-three.—The death is announced of the Professor of Oriental Languages in Halle, August Mueller, who rendered great services to the history of medicine by his works on ancient Arabic medicine.

WE have to announce with regret the death, on Monday last, at North Berwick, of Alexander Keiller, LL.D. St. And., M.D., F.R.C.P., F.R.S. Edin., Consulting Physician for Diseases of Women at the Royal Infirmary, Edinburgh, and the holder of many other appointments in the northern capital. We hope in an early number to give a record of the life and work of the late distinguished physician.

THE Royal Commissioners appointed to consider the question of the water-supply of the metropolis will, on Wednesday next and two following days, resume their meetings, under the presidency of Lord Balfour of Burleigh, for the reception of evidence.

THE Harveian Oration will be delivered at the Royal College of Physicians, Pall Mall East, by Dr. J. H. Bridges, at 4 P.M. on Tuesday, Oct. 18th.

CHOLERA.

CURRENT NOTES, COMMENTS AND CRITICISM.

IT is a source of satisfaction to learn the truth about the conduct of the people of Hamburg when face to face with the calamitous sickness that has prevailed in their city since the middle of August last, and which is now happily fast subsiding. The statements which were originally promulgated as to their utter helplessness and want of organising power to cope with the epidemic were, if not altogether false, grossly exaggerated and sensational statements. The letters of the special correspondent of *The Times* obviously afford a far more accurate, reasonable and trustworthy record of the events making up the history of the epidemic. What are the facts? For the first few days the number of attacks was relatively small, but shortly afterwards the epidemic began to assume alarming proportions. Where the cases could be counted by fifties they were soon to be counted by the hundred, and in about a week they reached over a thousand per diem. Up to Aug. 20th there had been only 86 cases of cholera distributed over several days, and on the 22nd, the day the disease was officially recognised, they were 200, and by the 27th they had reached the maximum of 1101. Occurrences of this kind would be likely to strain the powers of the best organised community in the world. The preparations and arrangements for coping with such a state of things were not, and could not reasonably be expected to be, adequate or perfect. Cholera in Hamburg comported itself very much as it

does in India and elsewhere, when it takes, what may be termed, the "explosive" form of a severe outbreak. The shape assumed by such an outbreak, if graphically rendered in diagrammatic outline, may be likened to that of a truncated cone—with a difference however. It rises rapidly to a maximum, continues so for a brief period and then progressively declines, but the line indicating its descent slopes gradually down and is very different to that which represented its almost vertical ascent to a maximum. In this respect an outbreak or epidemic of cholera is more nearly allied to one of influenza than to an epidemic of typhus fever for example, in which contagion from person to person is the dominating factor, for here a diagrammatic figure outlining the rise, progress and decline of the epidemic would assume a cigar or fusiform shape. The probable explanation of this form of cholera outbreak may be adverted to later on; meanwhile, we are glad that their conduct—the really splendid energy of which the Hamburgers may be proud, says *The Times* correspondent—has been fully vindicated. Time was the great difficulty—want of time to make the necessary arrangements was the enemy they had to fight in confronting the cholera. If anyone will try to realise the difficulties that would arise on a small scale from the sudden and unexpected arrival of a hundred people at one of our largest and best-managed hotels, he can easily conceive that its organisation and administration might be for the moment severely tested. But in the case of persons sick and dying of cholera the requirements are infinitely greater and more urgent. A battle causes an epidemic of wounds and injuries, and we all know the strain that this imposes on the best organisation that was ever designed, where the administration is in the hands of men accustomed to provide for such emergencies and trained to act together in that kind of work. It needs such a clear appreciation of principles and mastery of details in regard to transport and hospital management, as well as such correctness and promptitude of judgment, as to amount to a sort of genius. The authorities at Hamburg rose to the occasion, and we are assured by Dr. Koch and other competent authorities that they did their work promptly, manfully and well.

According to the official return of the total number of cholera cases from the outbreak of the epidemic in Hamburg until Sept. 24th, 17,157 persons were attacked by the disease, and of these 7339 succumbed.

But it is to the very ably written tenth letter of *The Times* correspondent, headed "The Sins of Hamburg," and published in that paper on the 27th ult., that we particularly desire to call attention. The moral of the story which is there told, like all stories worth the telling, lies on the surface; its lesson cannot be missed. It is in the application of it that people are likely to falter and fail. The sudden explosion of cholera in Hamburg was apparently a case of wholesale water poisoning. Practically it signifies nothing for the present whether the foul water were the nurse or parent, whether it disseminated or created the cholera poison. The case that seems to have been proved to demonstration in the meantime is this: Here was a city in which the drainage was fairly good, the population not greatly overcrowded, no famine, and but little prevalence of the direst sort of poverty among them, with a creditable condition of house and personal cleanliness; but the drinking water was foul. The sewage may be graphically said "to go out at the basements and in at the roofs of the houses after taking a little tour in the river and the waterworks." This intimate connexion between the prevalence of cholera and contaminated or bad water-supply has been borne in upon us on all sides. There has been cholera for the past six months in France. The first outbreak of the disease took place in the Nanterre prison and asylum early in April last. It was alleged to have been caused by the introduction of contaminated water from the River Seine. The last outbreak in France took place at Portel, a fishing village in the vicinity of Boulogne; sixteen cases occurred and the cause in every case was traced to the drinking of impure water from a well which has since been closed by the sanitary authorities. Boulogne itself has escaped; the disease has not appeared there. Samples of water from that town have been chemically tested and found to be free from impurity. To complete the picture, cholera appeared in the suburbs of Paris to the west and north and long lingered there before it spread by the River Seine to Havre and implanted itself in Paris. The disease was attributed in these cases also to the use of impure water from the River Seine fouled at various places by sewage. *En passant* we would here call attention to the diagram on another page, representing the daily death-rate from cholera in Paris and its suburbs. It does not signify from a practical point of view whether the true cause of the disease be a comma bacillus, a spirillum, or a vibrio, and their relations one to another, or whether it be any other vitalised agent, the lesson to be learnt is the same; and the two reports which have just been issued from the Medical Department of the Local Government Board regarding the causes of the widespread prevalence of fever in the towns of Rotherham, Rawmarsh and Greasbrough, in the West Riding of Yorkshire, and of the outbreak of typhoid fever at King's Lynn, Norfolk, bring this subject of our water services in this country and the dangers to which a community is exposed conspicuously before us. In these cases also the disease was traced to water pollution. Such pollution may to-day be the cause of enteric fever and to-morrow of cholera. The medical or scientific aspect of the question is another matter. We do not of course intend to minimise or depreciate its importance, for it goes without saying that it is vastly important, and that a logical mind is impelled to seek for and identify the true cause and to differentiate it, if possible, from everything else. But the practical outcome, the object lessons, of the events which have recently taken place on the Continent and elsewhere have tended to demonstrate the importance of a pure water-supply as a safeguard against cholera, as well as against other diseases which are perennial with us, whereas cholera is an exotic and only an occasional visitant.

It appears that Professor Pettenkofer of Munich, who has been actively engaged in studying and observing the disease, together with Professor Koch, during the Hamburg epidemic, considers that the latter's theory of the origin of cholera has not altogether stood the test of experience in Hamburg. It has not been proved, according to Professor Pettenkofer, that the pestilence was brought there in the way indicated by Professor Koch, or that the comma bacillus is the sole cause of the Hamburg epidemic. As will be readily understood by those acquainted with Professor Pettenkofer's ground water theory, he considers that a combination of the two views is necessary to explain all the phenomena of the epidemic. But as it is stated that Professor Pettenkofer intends to publish the results of his observations and conclusions, we need say no more on this head.

There are, however, several points of great scientific interest which still require to be settled before the scientific horizon can be said to be clear. One of the difficulties attending the complete acceptation of the cholera bacillus theory of causation is to account for the occurrence of isolated and sporadic cases of that disease, which in the aggregate amount to a large number—in India, for example. One man is attacked and dies of cholera in a barrack-room occupied by a number of others, the air, food, water-supply and all other conditions being the same for all alike. There is, perhaps, no other case of cholera in the station at the time, nor is there any history of any having occurred before; and this is not at all an uncommon but a frequent occurrence in India at certain seasons, and outside and beyond the so-called endemic area. The relation of these cases to larger outbreaks and epidemics has not hitherto been exactly defined, for when an epidemic occurs later on it does not at all follow that it should be at the same place or time, or soon after the occurrences to which we are referring; and parallel with this is the inquiry, How did the River Seine become infested with the comma bacillus, and how was the cause of the disease introduced into Hamburg, or, to take the latest example, into the well at Portel, the fishing village near Boulogne? Some light may be hereafter thrown on these subjects. Of course it is often excessively difficult to trace out the natural history and descent of an animal or micro-organism and it may be impossible to trace the lineage of a disease, and yet the failure to do so would not at all invalidate the conclusion that it depended upon a specific organism like the comma bacillus.

While the military manœuvres in Germany were postponed, those in France took place during the present autumn, and the *fête* of the 22nd ult. was celebrated. Whether these gatherings have had any effect or not on the prevalence of cholera in France it would be hard to say. The disease still lingers in that country, although the number of cases is relatively very small considering its population. There is a progressive decline of the disease in Hamburg, satisfactory reports from Vienna and Galicia, and from Brussels, Berlin, the Netherlands, St. Petersburg and New York, notwithstanding that the disease still prevails more or less in these places.

A word regarding the correspondent of the *New York Herald*, who got himself inoculated for cholera in Paris by M. Haffkine. This gentleman has gone through a great experience in the Hamburg hospitals, and he enters into a description of all the details connected with the various and different tests to which he has subjected himself. As regards their scientific and practical results, however, they are valueless, for we knew already that nurses and medical officers did not run any great risk of catching the disease by contact with the sick in cholera hospitals; and as regards more direct methods of infection, a negative result in any individual case will not prove that the apparent immunity was conferred by any previous inoculation; and if the experimenter were attacked and died of the disease we should be no wiser as to how he contracted it, although the occurrence would indicate that in his particular case the previous inoculation had not protected him. There is hardly any test to which some individuals have not at some time or other subjected themselves without contracting the disease, but this fact has not carried conviction to the minds of anyone or served to establish any particular view on a scientific basis.

We are glad to notice that the simplicity and efficacy of the preventive measures adopted by the Local Government Board in this country have attracted attention on the Continent.

It is reassuring to know that, with the exception of a case or two at Hull from the *Uranus* from Hamburg, this country remains free from the disease. When such success has been attained up to the present in keeping cholera out of England it is extraordinary to find a body like the Town Council of Grimsby suggesting to its fellow port sanitary authorities that they should apply to the Local Government Board for powers to detain all ships from infected ports in quarantine for seven days. It is said that the Hull authorities have strenuously dissented from this view, and we trust that no port authority in this country will be found to support the retrograde proposal of the Grimsby Town Council. Abroad the disease appears to be distinctly waning in both St. Petersburg and Hamburg. A few cases are still reported from Berlin, and there appear to be signs of the enemy still in Holland—e.g., at Rotterdam and the Hague. The prevalence of choleriform diarrhœa is diminishing in Paris, but a few cases of what appears to be genuine cholera are reported from the vicinity of Boulogne. America appears to be practically free, there having been no extension of the disease which appeared, in spite of quarantine, in New York city. The German Imperial Government are now alive to the necessity of stringent sanitary administration, and a Bill is being drafted which will comprise regulations as to infectious disease applicable to the whole empire. We have already in the foregoing part of this article referred to the well-informed statements which have been made regarding the sanitary condition of Hamburg, and drawing attention to the state of the canals and of the Alster Lake, as well as of the conditions of the water-supply. It appears that the water drunk at Hamburg is nothing but Elbe sewage, subjected to no filtration, but only to a rude and incomplete subsidence. We have pointed out that facts have been adduced against the current hypothesis of the introduction of cholera into Hamburg by means of Russian emigrants and some stress laid upon a theory of soil development of the disease after Pettenkofer. But whether introduced from Russia or developed from seeds of previous epidemics left in the soil, under seasonal influences, is a problem to be settled only after much patient investigation in the future.

THE CHOLERA IN FRANCE.

PARIS.

(FROM OUR SPECIAL CORRESPONDENT.)

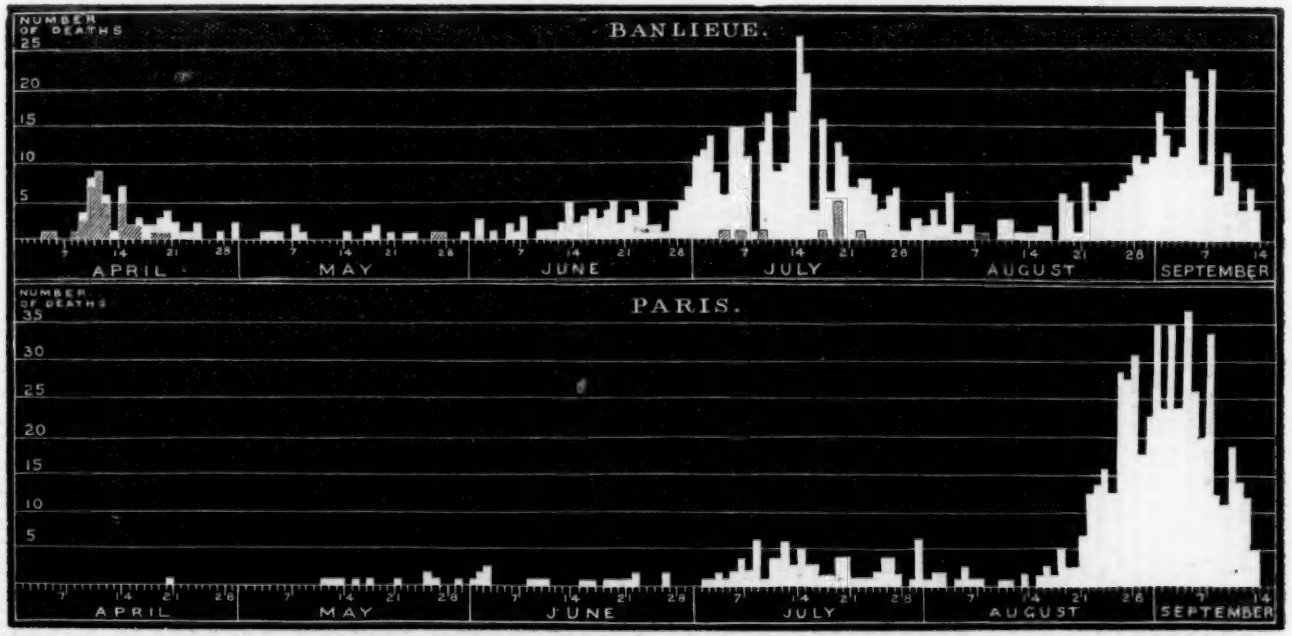
THE DEVELOPMENT OF THE EPIDEMIC.

On Sept. 13th Dr. Brouardel stated before the Academy of Medicine that the first cases of cholera occurred at Bakou on June 22nd, at Nanterre near Paris on April 2nd, at Hamburg on Aug. 11th, and at Havre on Aug. 2nd. It is something to find that the truth is at last acknowledged and this by so high an authority. In July, when I was last in Paris, every effort was made to conceal the real facts. It was said that out of ten clearly defined cases there were as many as nine deaths. It was recognised that the deaths were most rapid, occurring after a few hours; but, nevertheless, we were asked to believe that this was only cholera nostras. The fact that the disease did not spread was not attributed to better hygiene and a more strict and skilful application of prophylactic precautions, but the slowness of development was taken as a proof that it was not an epidemic of cholera. Now, however, the disease has spread, not to a very large extent, but in any case there are already more victims than during the entire epidemic of 1884; and in that year no attempt was made to disguise the fact that true cholera prevailed in Paris. The only difference is that the epidemic spread much more rapidly in 1884 and lasted but a short time. It had been simmering in the outskirts of Paris for several months, but when it gained a footing within the town it increased very rapidly. There were two deaths on Nov. 4th, 1884, and 110 deaths on the 10th of the month. But, on the other hand, there were only 938 deaths in all, and, adding to these the deaths which occurred in the suburbs, the total was close upon 1000. In the present epidemic the number of victims is already in excess of the cholera death-roll of 1884, only this year the suburbs of Paris have suffered more acutely. Dr. Paul Brousse, reporter of the Permanent Committee on Epidemics, and Municipal Councillor, has prepared a diagram of the present epidemic (which we reproduce on the opposite page) to show the daily, weekly and monthly death-rate from cholera in the suburbs and within the fortifications of Paris. The diagram illustrates how slowly the cholera has spread but how much it increased during July and September in the suburbs and during September in Paris. The figures are as follows:—In the suburbs there were 24 deaths in April, 14 in May, 76 in June, 299 in July, 123 in August, and from Sept. 1st to 14th, 173 deaths. This gives a total of 709 deaths in the suburbs of Paris, but within the department of the Seine; for it must be noticed that there are other districts that may also be considered suburbs of Paris, such as Sarcelles, where the Belgian bricklayers from Jumet contracted cholera, which are not included in these statistics because they form part of another department or county. In Paris—that is, within the fortifications or walls of Paris—there was one death attributed to cholera in April, and this occurred on the 21st. In May there were 10 deaths, in June 19, in July 83 and in August 229. Towards the end of August the cholera had greatly increased. During the first twelve days of September there was an average daily death-rate from cholera of 24, but there has been a considerable decrease since the 13th of the month. Altogether, from Sept. 1st to Sept. 19th there were 357 deaths attributed to cholera within the walls of Paris. Adding this to the 342 deaths recorded during the previous five months, there was a total of 699 deaths within Paris. This figure, taken in conjunction with the 709 deaths in the suburbs, gives a grand total of 1408, and is therefore considerably above the epidemic of 1884, which, as already stated, for Paris and the suburbs, did not quite reach the total of 1000. These figures demonstrate only too painfully that I was justified when, in June and July, I insisted on the importance of the few cases that then occurred. I should also add that at the Nanterre prison and asylum there were 43 deaths, most of them occurring in the month of April. It is difficult to say whether these should be considered as suburban or Parisian cases; for, though the prison of Nanterre is in the suburbs, the patients, mostly vagabonds and beggars, sickened and died very shortly after their arrival from Paris. These 43 deaths increase the general total to 1451 deaths.

THE ORGANISATION OF MEDICAL INSPECTION, OF DISINFECTION, AND OF THE AMBULANCE SERVICE

The statistics as to the number of cases of cholera in the Department of the Seine should be fairly correct, for the most careful measures are taken by the Prefecture of Police so as to receive prompt and accurate information. M. Besançon, the courteous and amiable Chief of the Second Division at the Prefecture of Police, who in France represents the administrative side of sanitary reform, and who is a faithful attendant of the International Congresses of Hygiene, was kind enough to explain this mechanism. First I was shown a little pocket-book such as has been distributed to every doctor in Paris. It is of the size of a post-card, and should never leave the practitioner's pocket. On the inside of the wrapper the following is printed: "Prefecture of Police, Second Division, Fourth Bureau, Epidemical Service. Extract from the Decree of Aug. 29th, 1892:—Article 6: The declarations at the Town Hall of all cases that seem likely to prove cases of cholera is obligatory, and must be made within a delay of twenty-four hours by the doctor or medical officer

DIAGRAM REPRESENTING THE DAILY DEATH-RATE FROM CHOLERA IN PARIS AND THE SUBURBS.



The upper column of the diagram represents the daily, weekly and monthly death-rate due to Cholera in the SUBURBS OF PARIS AND WITHIN THE DEPARTMENT OF THE SEINE, from the beginning of April until the 14th of September. The shaded portions represent the deaths within the DEPARTMENTAL PRISON AND ASYLUM AT NANTERRE.

The lower table shows in graphic form the number of deaths from Cholera within the FORTIFICATION WALL OF PARIS during the same period.

who has seen the case, by the head of the family or the persons who are nursing the patient, and by any person with whom the patient is lodging. In Paris this declaration must be made at the Prefecture of Police, or at the Town Halls (*mairies*). Article 10: Any infraction of the present decree shall be reported and give rise to a prosecution according to Article 14 of the law of the 3rd March, 1822, which punishes by imprisonment of from three to fifteen days and a fine of from 5 fr. to 50 fr. all who have disobeyed, in sanitary matters, the orders given by competent authorities."

The pocket-book contains twelve folded letter cards addressed to the "Prefect of Police; Epidemical Service," with notice in the corner that the letter need not be stamped. Inside is a printed formula which has to be filled up, by which Doctor ——— declares that such person of such an age, residing at such an address, "presents choleriform symptoms." Then there is space remaining for other details relating to disinfection, removal of the patient &c. The private practitioner on seeing the patient should then and there fill up the letter, gum down the edges, remove it from the pocket-book and drop it into the nearest letter-box. The inside of the wrapper at the end of this little pocket-book gives instruction for the procuring of ambulances and for disinfection.

At the Prefecture of Police a record of each case is kept on two separate cards. One card is white and headed by the name of the patient, and of course these cards are placed in boxes according to alphabetical order. The other card is yellow and is headed by the address of the patient. The latter is the most useful, for here are found in alphabetical order the streets where cases have occurred, and a glance will show where the epidemic is causing the most harm. Every morning at eight o'clock six doctors attached to the Permanent Committee of Hygiene[1] arrive at the Prefecture of Police, study these white and yellow cards, and determine what places they should inspect during the course of the day. In time every case reported is visited by one of the doctors from the Prefecture. These official medical inspectors carry with them white cards of a larger dimension than those already described. On the top of the card is a space for the address of the place visited. These follow personal details concerning the patient, the date of the illness and details relating to the malady. After this there is a space to fill up with information as to cases, if any, of contagion in or near the house. Another space is left, so that the nature of the water consumed in the house may be mentioned; and finally, all the details concerning disinfection have to be given.

In any case in Paris the necessity of disinfection is at last fully recognised. The services for the disinfection of private houses have been organised quite recently, but great progress has been accomplished in a very short time. The principal disinfecting station is in the Rue des Recollets, near the Eastern Railway Station, and its organisation is more perfect than anything of the sort I have seen in England. Of course the premises are divided in half with two separate entrances—the infected and the disinfected sides. The disinfectors arrive in the morning on the clean side. They are then introduced into a little room, where they take off all their clothes. From this there is a middle room with the necessary apparatus for washing and for taking a douche. In a third room they find their working clothes, and from this third room they reach the infected side of the establishment. To return to the clean side, they must leave their working clothes in the third room, take a douche in the middle room and put on their ordinary clothes in the first room. The disinfecting stoves are of course walled round, the entrance to the stoves being on the infected side, while the objects, when purified, are taken out on the opposite and clean side. What is now known as the official stoves only are used. These act by steam superheated under pressure. The temperature is generally about 118° C., and the operation does not require more than about twenty-five minutes. But these stoves have been often described. They are the same as those that are used in most parts of the world, from Belgium to the Caucasus, or from the Suez Canal, at Gibraltar and on board the large ocean liners. The attendants at the Rue des Recollets declared that they had received but few complaints as to damage done to the clothes they had disinfected.

The establishment was somewhat in a state of confusion at the time of my visit, as a new stove was about to be introduced, and it was necessary to build larger storing rooms in which to place the objects that have been disinfected. It is a rule that no object, on being withdrawn from the stove, shall be put on the ground. It must be placed on large shelves that are built for this purpose. Last week I mentioned that the number of disinfecting operations performed from Sept. 1st to 15th amounted to 1598. This figure had increased to 2271 on Sept. 23rd. Never has such extensive disinfection been previously accomplished in Paris, and to meet such a demand it is necessary on all sides to increase the number of stoves and the size of the premises. These figures do not include the disinfection of passengers' luggage and other goods coming by train, but apply only to the disinfection of houses where there have been cases of cholera and other contagious diseases.

The disinfectors, having put on their working clothes, start out to the various houses where their services are required. They are conveyed in large closed carts. On reaching the house which has to be disinfected they put on a large pair of canvas trousers and a large blouse which fits tightly round the neck and the wrists. They have with them a counterfoil book on which they inscribe on both sides all they intend to take away. One list is left with the owner, the second list is on the other half of the leaf and remains in their book. All the bedding, curtains, carpets and soiled linen are carefully folded up in canvas and securely packed. This is placed in the closed cart which is waiting in the street. The disinfectors have with them wooden jugs of 18 litres capacity, and packages containing 50 grammes of sulphate of copper, and other packages containing 7·5 grammes of bichloride of mercury and 30 grammes of tartaric acid. One of the latter packets is emptied into one of the wooden jugs and dissolved in water. The solution is poured into the pulveriser, and the disinfector proceeds to systematically work the spray over the walls and the furniture and into all the corners. The other wooden jug is half filled with water, fifteen packets of sulphate of copper are added, and then the jug is filled with more water. When the crystals are dissolved the solution is used to pour down the drains, to wash the floor and walls of the closets and to mix with the excreta of the patient that may still be found on the premises. This completes the process of disinfection. The disinfectors then remove their overalls, which are packed in a small bag and placed in the cart to be disinfected in the stoves with the bedding &c., and before proceeding further spray themselves over with the mercurial solution. Thus the danger of spreading infection during the process of disinfection is reduced to a minimum. It will be remarked that the process of fumigation has been entirely abandoned. The Paris authorities have greater confidence in the antiseptic properties and the penetrating powers of the mercurial spray.

In the suburbs of Paris the linen, bedding &c. are not carried away, but a portable disinfecting stove is brought to the house and the disinfection by superheated steam is practised in the street at the patient's door. For this purpose there are in the Department of the Seine, but outside the walls of Paris, fourteen portable stoves. Only two of these portable stoves are on the south side of the Seine, at Sceaux and Villejuif. Two more are to the east of Paris, at Charenton and Vincennes. These four stoves cover one half of the circle round Paris; the fact that the ten other portable stoves are in the other half of the circle eloquently indicates where the cholera epidemic has found most of its victims. The ten stoves are distributed as follows:—One at Pantin, one at Aubervilliers, two at St. Denis, one at St. Ouen, one at Clichy, one at Neuilly, two at Courbevoie and one at Boulogne. With each stove there is a pulverising apparatus.

It is important to add that all these disinfecting operations are carried out absolutely gratuitously. No payment is demanded either from the rich or the poor. It was felt strongly that any question of payment would tend to cripple the action of the administration. Success depended on the principle of perfect equality. Some wealthy persons might not object to pay, but the poor would strongly object to being treated on a different and on a humiliating footing. The enforcement of sanitary measures must not tend to pauperise certain sections of the population. Therefore disinfection is at once obligatory and gratuitous all round, and there is no difference whatsoever made between rich and poor.

Disinfection was first practised at the Rue des Recollets, because there is here a large night refuge, where nearly 300 people are given shelter for three days in the month. Persons applying for this help were required to strip, a foot-bath and douche were given them and a suit of canvas clothes

[1] See, with regard to the creation and functions of this committee, THE LANCET of July 23rd, 1892.

provided for the night. In the interval their own clothes were disinfected, and for this purpose a disinfecting stove was placed close at hand. This stove, intended originally only for those who came to the asylum or casual ward, was the nucleus of the public disinfecting station now so well organised and so generally appreciated. The disinfecting station in the Rue du Château-des-Rentiers, beyond the Orleans railway station, had a similar origin. Here also there is a night refuge, organised likewise by the Paris Municipality. The washing, the douche and the disinfection of the clothes are similarly enforced, and here likewise the number of disinfecting stoves is being increased, for this has become the public disinfecting station for the south side of the river. On the evening preceding my visit a poor man who was enjoying the hospitality of this asylum was taken ill a few minutes before midnight. The manager of the refuge at once removed the patient from the dormitory, poured a sulphate of copper solution on the dejections and telephoned for the ambulance. The man was promptly removed to the hospital, where he died at two in the morning. The period of illness certainly did not last more than two hours and a quarter. This is the first case of cholera that has occurred in the refuge. The next day the walls of the dormitory were treated with the mercurial spray; and 207 mattresses, 267 rugs and 414 sheets were disinfected in the stove, which is fortunately on the premises. The closets were drenched with a solution of sulphate of copper and the street pavement outside the night refuge was washed with a disinfectant. If would be difficult to do more. While speaking of these night refuges, I might mention that the cost, including all the service administration &c. of receiving the poor, of giving them a footbath and douche, of lending them a suit of clothes for the night, of disinfecting their clothes, of giving them a good bowl of meat and vegetable soup in the evening and a piece of bread in the morning, amounts per person relieved to 55 centimes at the Rue des Récollets and to 42 centimes at the Rue du Château-des Rentiers. Finally, as an indication of the humane sentiment that animates the management of these municipal refuges, I should not omit to describe the care with which the clothes are disinfected. They are not folded up as is the practice at our English casual wards, so that they come out of the stove all creased. On the contrary, sticks are provided, to which the clothes are fastened in such a manner that there are no creases and no one can tell that the wearer has been in a refuge.

The third disinfecting station is in the Rue de Chaligny, beyond the Faubourg St. Antoine, and is only separated from the Hôpital St. Antoine by a wall. The principle of management is the same at all the three stations. The division between the infected and the disinfected sides is strictly observed, and there are the three compartments for the disinfectors, so that they may change their clothes and take a douche when they finish work.

At the Rue de Chaligny there is also the municipal ambulance service. The other municipal ambulance service is in the Rue de Staël on the south side of the river, near the Boulevard Vaugirard. I will describe the latter as being the more perfect of the two. There is a small central building where three trained nurses live. On one side there are the door and the stabling for the ambulances that are ready to start, and on the other the infected ambulances that have returned from service. These ambulances have the form of small omnibuses; they are absolutely bare inside and lined with tin, the angles being rounded off. The only furniture is an iron folding shelf that serves as a seat for the nurse. Then there are portable iron stretchers, which can be folded up in the form of an arm-chair or laid out as a bedstead. Communication by telephone or telegraph is open day and night with these ambulance stations. When the ambulance is called to fetch a patient the coachman puts on a canvas suit very similar to those worn by the disinfectors. The nurse puts on a white linen gown that fits tightly round the neck and the wrists and descends to the feet. She also puts on her service shoes. On reaching the house the coachman and the nurse, with the aid of whatever assistance may be found on the premises, place the patient on the iron folding chair, on which a small mattress and rugs have been placed. The patient is driven to the hospital and then the ambulance returns to its station. A door close to the entrance on the infected side admits the nurse to a lavatory, where she removes her gown and her shoes and washes herself in a mercurial solution. The coachman in the meanwhile has made a bundle of the mattress and rug, which are then ready to send to the disinfecting stove. With the pulveriser he then proceeds to disinfect the inside of the ambulance waggon. The ambulance is now ready for the next case, and is sent over to the other side of the yard. At the back of the yard are the stables, where two horses are always kept ready harnessed. The ambulance carriages cost £120, wheels with indiarubber tyres cost £18 more, and the folding iron stretchers cost £5 each. In the month of August the nurses at the Rue de Staël removed 655 patients, of whom 114 were infectious or contagious cases. Up to Sept. 24th they removed 484 patients, and had generally to deal with three or four cholera cases every day.

The disinfecting stoves and ambulances are under the control of the Prefecture of the Seine, but the Prefecture of Police has also under its orders a number of carriages for the removal of the sick. A doctor or the friends of the patient may therefore apply either to the Prefecture of Police or to the municipal ambulances of the Rue de Chaligny and the Rue de Staël. This dual authority is somewhat perplexing, and it is most regrettable that it should have lasted so long. Finally, if a patient is removed to the hospital in a cab or private carriage it will be found that the Prefecture of Police has placed a policeman at the entrance of every hospital. The cab or carriage is made to enter the yard of the hospital, and the policeman is there to see that it does not come out again till it has been disinfected. In case of a cab the cabman receives 1*s.* 8*d.* as a compensation for the delay caused by the disinfection. This, however, does not take long, being done with the pulveriser and the mercurial solution.

Such are some of the methods and the precautions which the authorities in Paris are now adopting. They constitute a most notable improvement on what has been done during previous cholera epidemics.

NOTES ON TREATMENT.

Our Paris correspondent, writing on the 28th ult., says that it is reported that from Sept. 17th to the 24th there occurred at Portel, a fishing village near Boulogne-sur-Mer, ten deaths from cholera. The director of the Board of Health arrived there on Saturday with a disinfecting stove, and Dr. Aigre, Mayor of Boulogne, visited the place on Friday. Steps are being taken to limit the outbreak. A commission, appointed by the Municipal Council of Paris, has left for London and Glasgow, in order to study the methods employed by water companies in these towns for the filtration of drinking water. At a meeting of the Académie de Médecine Dr. Gibert of Havre uttered a protest against the closing of ports in times of cholera to vessels hailing from contaminated countries. He states that during the present epidemic Havre has so far suffered a loss of 30,000,000 francs from this cause. He points out that England has succeeded in restricting the outbreak to twenty-five cases simply by burning all objects belonging to a cholera patient, whilst keeping her ports free to all comers. At the same meeting Dr. Gaillard reported the results of a mode of treatment followed by him at the extemporised hospital situated in bastion 36. Whenever a patient was admitted in the algid stage his body was at once vigorously rubbed, repeated hypodermic injections of caffeine and ether were given, as also inhalations of oxygen. If no benefit accrued two litres (for an adult) of the following saline solution were injected into the internal saphenous vein:—Sterilised distilled water, 1000 grammes; chloride of sodium, 5 grammes; sulphate of sodium, 10 grammes. This generally suffices to revive the patient. Sometimes, however, the transfusion has had to be repeated (once five times), but an interval of at least eleven hours is allowed to elapse between the injections. When the patient is able to swallow he is given a litre of sweetened water containing fifteen grammes of lactic acid. This is followed by champagne, coffee and nutrient enemata. Dr. Gaillard's results stand thus: Cures, 173; deaths, 164; under treatment, 23—total, 360. Of the cases cured, twenty-five owe their lives to transfusion of sterilised serum. One operation generally sufficed; in three cases only was the transfusion repeated once. Fifty-two very serious cases were saved by the lactic acid treatment only, without transfusion. At the height of the epidemic there were as many as sixty-two male nurses in the hospital; of these, only one contracted the disease, and he was saved by transfusion. The youngest of the transfused patients was aged eight and the oldest—there were three of them—fifty-six years.

CHOLERA IN GERMANY.

Our correspondent, writing from Berlin, says:—"The numbers of cholera cases and deaths reported from Hamburg on the 16th inst. were 276 and 136; on the 17th, 286 and 127; on the 18th, 241 and 115; on the 19th, 206 and 105; on the 20th, 211 and 100; on the 21st, 180 and 97; on the 22nd, 199 and 69; on the 23rd, 115 and 56; on the 24th, 81 and 49; and on the 25th, 126 and 47. After Professor Koch's last visit to Hamburg it was given out that he had spoken of the anti-cholera measures there in terms of the highest praise. The *Frankfurter Zeitung*, however, has received the following much more credible report from that city:—'It is true that Professor Koch praised some of the measures taken by the authorities, but in general he made no attempt whatever to conceal his dissatisfaction, and even severely blamed this and the other. He frankly declared to the members of the Commission that, if the State (i.e., the little republic of Hamburg) did not at once provide good drinking water for the people, we should not get rid of the epidemic. The distribution of boiled water and spring water was only a temporary make-shift, which could not last long, because, for one thing, even comfortably situated people could not long afford to boil all the water they use in their homes themselves.' The immediate results of Professor Koch's visit were that the Commission resolved to have all the cisterns cleaned, the foci of contagion disinfected and Abyssinian wells sunk. Professor von Pettenkofer of Munich, one of the first authorities on cholera, who is by no means altogether at one with Dr. Koch, spent some days at Hamburg last week, studying the epidemic. Dr. Koch visited Stettin on the 19th instant and inspected the waterworks there. He is reported to have declared that the Oder was undoubtedly infected with cholera bacilli, and that, as the water-supply of Stettin is taken from that river, the city was in danger unless the filters kept the bacilli out, which was possible only if the water passed through at the rate of 100 millimetres an hour at most, whereas the rate then was from 200 to 300. This excessive rapidity was due to waste, the Stettiners having used during the last few months from one and a half to twice as much water as necessary. The magistrates have ordered the enlargement of the filtering apparatus, and the work has already begun. An interesting observation has been made in the Hamburg suburb of Sankt Pauli, where cholera raged with great severity. In a block of houses which gets its water from the adjacent Altona not a single case occurred. Altona, like Hamburg, takes its water from the Elbe, but filters it, which Hamburg does not. The fury of the epidemic, however, is not due to bad water alone, but also to the overcrowded dwellings of the poor."

A Hamburg correspondent writes:—"The Hamburg Waterworks, to which so much attention has been directed, are situated about a mile and a half to the west of the town. The intake from the Elbe is a little higher. There is no attempt to purify the water, the water-works being a mere pumping-station to force the water with all its impurities into the mains supplying the town. In this suburb the first cases of cholera occurred, the first case, so far as can be discovered, being a man employed in cleaning ships; but, as he rapidly became unconscious, it is not known on what ships he had been employed. Thus the exact source of the original infection can never be known. Immediately in his neighbourhood several similar cases occurred. The authorities declare that it was not till then that the comma bacillus was seen, and therefore that they could not be sure that cholera was present. Asiatic cholera is a most marked and characteristic disease, having specific symptoms and being invariably attended by great mortality. These symptoms were present, and a great mortality existed—far greater than could be possible with mere European cholerine. Moreover, the comma bacillus has not yet by any means been universally admitted to be the cause of cholera, in spite of all the energy of Dr. Koch and his supporters. Is, then, a town to be allowed to have a severely fatal disease, attended with all the symptoms of cholera, and yet to be regarded as perfectly free from infectious disease, because a bacillus which is hypothetically looked upon by some to be its cause has not been recognised? Cholera, unfortunately, is not a theory but a reality, and will make its presence felt by its mortality; and it should be the duty of every place having a disease with all the symptoms of cholera and its mortality to 'proclaim the fact' at once—the bacillus can be searched for afterwards."

CHOLERA IN AUSTRIA.

Our Vienna Correspondent writes:—"The reports on the course of the cholera in Galicia, which reached Vienna during the last week, led to the expectation that there were only sporadic cases to be met with at Cracow, Podgorze and Wolowice. In the first two towns during the period from Sept. 8th to Sept. 25th only fifteen cases of cholera, with five deaths, have occurred, and these cases showed the specific local character of the disease. The private buildings where these occurred were carefully isolated and their inhabitants kept under medical supervision. As may be seen from the low death-rate, the disease has not been of a very virulent character. In some of the cases infection could be traced to dirty linen. Naturally, disinfecting operations were carried out at Cracow with the greatest energy, sometimes even with curious effects, as in a case in which three young girls were brought to the hospital there with symptoms of gastro-enteritis. It turned out that they had contracted the disease from having eaten fruit which had been disinfected by carbolic acid. At Wolowice only four cases with two deaths occurred a week ago, but no other cases followed. According to official reports no case of cholera has been observed throughout Galicia within the last three days, so that the local authorities believe that the local epidemics are already stamped out. In the meantime medical examination of the passengers arriving from Galicia is carried out in the other Austrian towns, and the importation of meat &c. from the infected districts is prohibited. Last week a railway car containing over 1700 kilogrammes of Galician meat arrived at Vienna, having passed through Cracow. The meat was destroyed by fire. The lack of foresight on the part of the local authorities was also noticeable in the case of supplying Vienna with food. No arrangement had been made to secure the importation of meat from other sources in the case of an outbreak of cholera in Galicia, from which the greatest quantity of meat, eggs &c. is supplied to Vienna in normal times. In Bohemian frontier stations the observation has been made that comma-bacilli may be found also in apparently slight cases of diarrhœa. These cases occur in boatmen who have come on the Elbe from Germany in their barges."

NOTES ON AN ACCIDENT UNDER CHLOROFORM.

BY SURGEON-LIEUTENANT-COLONEL E. LAWRIE.

No. 1433.—Mukrum Khan, aged forty, a powerful Afghan Mahommedan male; disease sinus; chloroformed at the Afzulgunj Hospital on Aug. 19th, 1892, by a student; full anæsthesia in 2 min. 25 sec.

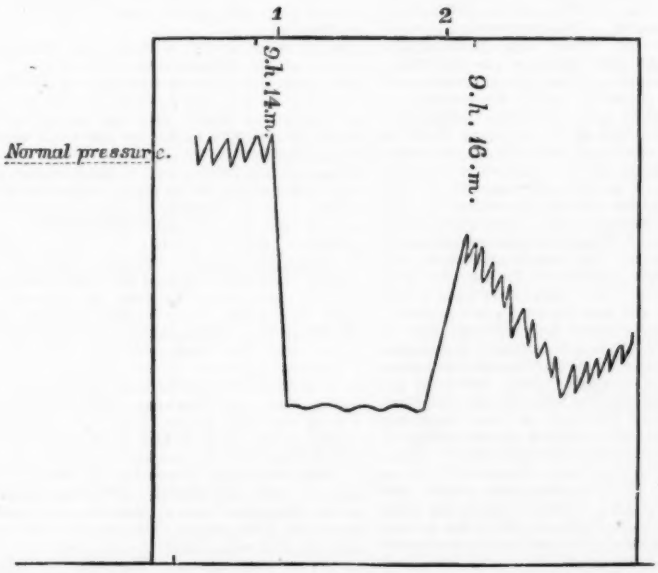
H. M. S.	OBSERVATIONS.
8 42 20.	—Chloroform on cap; resisting and struggling very violently almost at once.
8 43 25.	—Stopped struggling; natural breathing.
8 43 30.	—Chloroform added to the cap; two breaths of air.
8 43 45.	—Respiration twenty-eight a minute.
8 44 45.	—Over; cornea insensitive; cap removed.
8 45 5.	—Shallow breathing; jaw pushed forward.
8 45 25.	—Natural breathing; cornea sensitive; cap reapplied.
8 45 40.	—Stertorous breathing; cap removed and jaw pushed forward.
8 47 0.	—Cornea sensitive; cap reapplied. The cornea became insensitive almost immediately; the respiration became shallow again forthwith, and the jaw had to be pushed forward to relieve it.
8 49 0.	—Struggling; cornea sensitive; cap reapplied.
8 49 40.	—Over; cornea insensitive; cap removed.
8 50 0.	—Respiration becoming shallow; jaw pushed forward.
8 50 20.	—Respiration stopped. Dr. Lawrie at once jumped on to the table astride of the patient and performed artificial respiration by Howard's method; natural breathing recommenced after 55 seconds.
8 51 15.	—Artificial respiration stopped; jaw still kept forward.
8 52 0.	—Normal respiration; jaw let go.
8 53 30.	—Operation finished.

(The notes of this case were taken by Dr. Lawrie and, after anæsthesia was complete, by a senior student.)

Remarks.—Immediately after the inhalation was commenced the patient struggled violently for more than a minute, and it required six or eight students to hold him on the table. Between 8 h. 45 m. and 8 h. 47 m. signs of respiratory failure occurred three times, consequently from 8 h. 47 m. no chloroform was given until 8 h. 49 m. The administration was then proceeded with, and was stopped directly the cornea became insensitive, at 8 h. 49 m. 40 s. After the in-

halation ceased the anæsthesia deepened. At 8 h. 50 m. the respiration began to fail, and it stopped altogether at 8 h. 50 m. 20 s. The patient became deathly pale, and it is probable that there was also reflex stoppage of the heart. Artificial respiration was performed for fifty-five seconds; he then took a natural breath and gradually recovered. The accidental over-dosing in this case emphasises the rule that chloroform should never be administered during the irregular breathing which accompanies violent struggling. It was quite right to hold the patient down, but the chloroform ought not to have been given until he was quiet and the respiration was regular and natural. The *rationale* of the overdosing is readily explained by the research of the Hyderabad Commission. The Report of the Commission demonstrates that asphyxia renders the respiratory centre extremely susceptible to the action of chloroform, and Experiments 64 and 178 show how narcosis may be produced by residual chloroform in the system after the inhalation of the anæsthetic has been discontinued.

The following is a diagram of part of Ludwig Tracing 3 of Experiment No. 64 of the Hyderabad Commission. The tracing reads from left to right:—



1. At the point marked 1 electrical irritation of both vagi and the administration of chloroform were begun simultaneously.
2. At point 2 the vagus irritation and chloroform inhalation were both stopped.

In Experiment 64 the administration of chloroform and electrical stimulation of both vagi were commenced simultaneously at 9 h. 14 m. 20 s., and the effect was to send the blood pressure down suddenly almost to zero and to arrest the circulation for nearly two minutes *while free respiration continued*. The air in the lungs was thus gradually charged with chloroform. When the inhalation of chloroform and stimulation of the vagi were stopped at 9 h. 16 m., the blood-pressure rose rapidly again, the circulation was resumed and the chloroform in the lungs was forthwith taken up and conveyed to the nerve centres. Narcosis was produced, and its effect is shown in the tracing by the fall of the blood pressure, which commenced at 9 h. 16 m. and continued until the residual chloroform in the lungs had been got rid of. This experiment reduces what happened in our case to demonstration. Residual chloroform, which was present in the system owing to previous irregularity of the breathing, was conveyed to the nerve centres after the inhalation was discontinued; the respiratory centre became narcotised and the breathing entirely stopped, and but for prompt artificial respiration the narcosis would in all probability have terminated fatally.

In order to prove to my students that it was the method of administration which was at fault and not the chloroform or any constitutional idiosyncrasy on the part of the patient, he was brought before the class again on the 21st instant and the wound was dressed under chloroform.

The following is the record of the second administration:—

No. 1442.—Mukrum Khan, Afghan Mahommedan male, aged forty, chloroformed at the Afzulgunj Hospital, on August 21st, 1892, by Dr. Lawrie; normal anæsthesia was produced in 4 min. 35 sec.; before the inhalation the heart was examined and found to be healthy; the pulse, which, without my knowledge, was watched out of curiosity by Dr. Leaf, was slow, weak and regular, and it did not vary in any appreciable degree throughout the inhalation or afterwards.

H. M. S.	OBSERVATIONS.
9 21 45.	—Chloroform on cap; blowing regularly; cap close.
9 22 30.	—Natural breathing
9 22 50.	—Chloroform added to the cap; two breaths of air.
9 23 5.	—Respiration twenty-four a minute, regular.
9 24 0.	—Respiration twenty a minute, regular.
9 24 8.	—Chloroform added to the cap; one breath of air.
9 24 40.	—Struggling; regular breathing; cap kept close.
9 25 15.	—Chloroform added to the cap; two breaths of air.
9 25 40.	—Snoring.
9 26 20.	—Over; cornea insensitive; cap removed.
9 35 40.	—Dressing finished.

The second administration helps to confirm the contention of the Hyderabad Commission that the respiratory centre is peculiarly susceptible to chloroform when it is asphyxiated. In the first administration the respiratory centre was accidentally partially asphyxiated, and full anæsthesia was promoted in 2 min. 25 sec. In the second administration, though the chloroform was given in the same way and the cap was held just as close to the patient's face as in the first, the breathing was natural and regular throughout and anæsthesia was produced in 4 min. 35 sec. Finally, it is probable that the asphyxia, which occurred at the commencement of the inhalation, was a factor in the over-dosing which took place in the first administration. I believe I am right in stating that Case No. 1433 constitutes the first reported instance of an accident under chloroform in which notes of all the events that occurred throughout the entire administration were recorded at the exact time of their occurrence.

MEDICAL MAGISTRATES.—Mr. B. Lumley, M.R.C.S., of Northallerton, has been appointed a magistrate for the North Riding.—Mr. W. D. Spanton, F.R.C.S. Edin., M.R.C.S. of Hanley, has been put on the Commission of the Peace for Staffordshire.

DEATH CERTIFICATES AND CORONERS' INQUESTS.

As several cases have recently occurred in which medical certificates of the cause of death have been given unwisely and even improperly, it may be profitable to call serious attention to this very important subject. The lay press, as representing the public, is very severe upon any practitioner who has given a death certificate which subsequent inquiry has shown to be incorrect. Equally severe are coroners, magistrates and prosecuting solicitors. Seeing how very dependent all classes of the public are, for protection from foul play and culpable neglect, upon medical practitioners, from the titled physician to the humble apothecary, this severity is not surprising. But the medical profession may in its turn ask all these severe critics to be just and to take equal cognisance of the following facts and figures. During the year 1890, which was a fairly typical one as regards deaths, the total number of these in England and Wales was, according to the Registrar-General's fifty-third annual report, 562,248. Of these the causes of 514,720, or of 91·6 per cent., were certified by registered medical practitioners. This represents an enormous service rendered to the State quite gratuitously, since the certifying practitioner receives no remuneration whatever from Government. Some practitioners may charge the friends of their patient a fee for the certificate; but this is exceptional, and in by far the larger proportion of cases the medical certification of the cause of death is quite gratuitous. Medical men have therefore no pecuniary motive for giving a certificate of death, as some of these censorious persons imply. It is evidently assumed also by the public that the law which governs the action of the faculty in giving these certificates is so clear and well defined as to present no difficulty. A glance at the Acts will show that this is quite erroneous. The second section of the twentieth clause of the Births and Deaths' Registration Act, 1874, is as follows: "In case of the death of any person who has been attended during his last illness by a registered medical practitioner, that practitioner shall sign and give to some person required by this Act to give information concerning the death a certificate stating to the best of his knowledge and belief the cause of death," &c. Section 3 is: "Where an inquest is held on the body of any deceased person a medical certificate of the cause of death need not be given to the registrar, but the certificate of the finding of the jury furnished by the coroner shall be sufficient." These two sections cover a very large number of cases: (1) those in which there has been medical attendance during life and in which the cause of death is perfectly natural; (2) those in which the coroner is informed of the death by the police, hospital authorities or other informants, and where an inquest follows as a matter of course, a certificate not being asked for. But it must be obvious to many lay readers as well as to all medical readers that the first of the two sections we have quoted is, as it stands, too absolute. Besides the two classes of deaths there is a third, and a very large one, in which the propriety of giving or refusing a certificate of death becomes one of the most important questions with which a medical practitioner has to deal, and upon his decision very serious consequences may ensue. Some physicians have concluded that the Act gives them no power to refuse a certificate in cases where they have attended during life; and in answer to a letter which one of these gentlemen sent some years ago to the Registrar-General that authority upheld this view, observing that the registrars had instructions to refer any doubtful cases to the coroner. With every respect to Sir Brydges P. Henniker we must observe that many cases will from time to time occur in which it is the plain duty of the medical attendant to refuse a certificate, and he will be safeguarded in doing so by Clause 39, which enacts a penalty for refusing a certificate *without reasonable excuse*. Moreover, the medical attendant might urge that he had grave doubts as to what the cause of death was, and that he was unwilling to incur any risk of a penalty under the second section of Clause 40, which punishes with fine and imprisonment anyone giving a false certificate.

Again, different Acts of Parliament must be read not in antagonism to, but in agreement with, each other, and it will be well to give here those portions of the third clause of the Coroners Act, 1887, which ought to guide medical practitioners in giving or refusing certificates of death: "Where a coroner is informed that the dead body of a person is lying within his jurisdiction, and there is reasonable cause to suspect that such person has died either a violent *or an unnatural death, or has died a sudden death of which the cause is unknown ..... or under such circumstances as to require an inquest in pursuance of any Act*, the coroner, whether the cause of death arose within his jurisdiction or not, shall" &c. It is well known that the coroner's right to hold an inquest where an injury is the primary though remote cause of death extends to within a year and a day after the injury. Who but the medical attendant can be aware of such a primary cause, and under such circumstances is it not obviously his duty to refuse a certificate and refer the case to the coroner? Who but the medical attendant can tell whether the death be a natural or unnatural one, whether, if it be a sudden death, the cause is known or unknown, or whether it has taken place under such circumstances as to require an inquest? It is clear from all this that a very large discretionary power rests with members of the profession, and it is obvious that for them to communicate directly with the coroner is a more satisfactory mode of informing him than by giving a certificate with regard to which it is the duty of the registrar not to act, but to inform the coroner. Such a roundabout method can only cause loss of valuable time and great inconvenience.

So far we have dealt with cases in which there has been a medical attendant some time before death. There are, however, other cases where a certificate is asked for. Sometimes a practitioner is called in only to find the patient dying or even dead. In these cases, and especially the latter, it is obviously improper to fill up the usual certificate, and the wisest course is to send a note to the coroner stating the circumstances and leaving it to his discretion as to whether he will hold an inquest or merely make an informal inquiry. Reference to the coroner does not necessarily imply that the case is one of foul play or of neglect. The discretionary powers of that functionary are almost as wide as those of the medical attendant. From the Registrar-General's return already cited we find that the causes of 31,581 deaths, or 5·6 per cent., were certified by coroners after inquest; while the causes of the remaining 15,947 deaths, or of 2·8 per cent., were not certified. These included deaths of infants who had been attended only by midwives, and of persons attended by unregistered practitioners as well as of persons who had received no medical attention of any kind in their last illnesses. In 25,883 cases, or 4·6 per cent. of the total deaths, the cause of death was so inadequately stated that it had to be referred to the class of "ill-defined and unspecified causes." It is satisfactory to learn that the proportion of these was slightly less than in the immediately preceding years, which fact, as the Registrar-General observes, was doubtlessly in part due to the 3768 letters of inquiry concerning doubtful cases (against 3185 such letters in the previous year) which were sent to the medical men. The result of this process was to transfer a large number of cases from ill-defined to definite headings. Thus, for instance, 522 deaths were removed from more or less vague headings, mainly "tumour," to cancer or malignant disease and 48 to syphilis.

We reproduce these quotations in evidence of our desire to do justice all round and, while guarding our professional brethren from injustice, not to overlook their mistakes. The filling up of a death certificate should be performed with the same care, thoroughness and sense of responsibility as the performance of a surgical operation, the administration of chloroform, or the making of a post-mortem examination. The old adage, "Things which are done in a hurry are not done well," applies especially to the giving of death certificates. In almost all the cases of criminal poisoning in which the deaths were certified to as due to natural causes the certificates had been given hastily and without due thought—in some cases wrongly. In one case justice was defeated by a certificate given by a surgeon who had not attended the deceased during life and who certified that the death was due to sunstroke. In two other cases certificates were given by a surgeon notwithstanding the strong remonstrances of his partner, entailing consequences upon the certifier which must have been very humiliating to him. A series of deaths from wholesale poisoning by arsenic were certified as due to pneumonia, and the list might be extended *ad infinitum*. Enough has been written to warn all medical practitioners against the hasty or careless giving of certificates.

Should it be considered desirable to amend the Registra-

tion Act of 1874 it is to be hoped that Clause 20 will have an additional section specifying the cases in which a certificate ought not to be given and thus supplying a great defect. Whether the large discretionary power thrown upon medical practitioners was intended as a compliment is doubtful; that it is a source of much worry, to say the very least, is beyond doubt. Meanwhile in this, as in other matters, members of the profession, individually as well as collectively, will do well to reform from within instead of waiting for pressure from without. Instruction in the matter of giving certificates should form the subject of at least one lecture to students, either in the course of forensic medicine or before the completion of the fifth year of study. Those practitioners who fill up certificates for unqualified practitioners must expect no sympathy from their more right-minded professional brethren, or from the medical press as representing them, still less from the Registrar-General and his superintendents To young and inexperienced practitioners we would give this advice, Never yield to pressure from the relatives or friends of a deceased person when the propriety of giving a death certificate appears to be doubtful. The refusal may cause some inconvenience or even loss; but these are trifles compared to the humiliation which may result from giving a certificate unguardedly, with the result of having to acknowledge the error in a court of law. We would further remind all members of the profession that it is only to their careful and exact certification of the cause of death in each and every instance that accurate returns can be secured—returns which are of incalculable value to the State, the profession and the public. Still more important is the refusal of a certificate when one ought not to be given, since it is only by this means that the public can be effectually guarded against foul play in its worst form of secret poisoning, and from the many modes in which death may be caused by acts of omission, especially among children of tender age.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Newcastle-upon-Tyne Urban District.—The death-rate for 1891 exhibited some decrease, amounting as it did to 23·7 per 1000 living; the zymotic rate was 2·5. Measles and whooping-cough were by far the most fatal of the infectious diseases, but neither small-pox nor typhus fever caused a single death, the former disease being at once stamped out, although it made its appearance on three successive occasions. In fact, the means of isolation available for the city and the excellent organisation carried out by Dr. Henry Armstrong afford excellent guarantees for the safety of the inhabitants against any preventable extension of such diseases. Considerable work was done during the year in connexion with the housing of the working-classes, and several departments of the sanitary bureau have been reorganised.

Lowestoft Urban District.—On a population of over 23,000 the death-rate last year was 16·2 per 1000 of the inhabitants, the zymotic rate being only 0·3, and the infant mortality 130 per 1000 births. Dr. Wynne has, in short, a satisfactory account to give of the borough, and he is able to speak most hopefully of the diminution which has been experienced as regards cases of enteric fever. Lowestoft is, however, not in a satisfactory state as regards its isolation hospital. The present building is one which is dangerous to convalescents, and its insufficiency has long been known; but the authority still hesitates as to doing its obvious duty in this respect in a proper manner.

Toxteth Park Urban District.—Dr. Steeves gives the death-rate of this favoured Liverpool suburb as 13·7 per 1000. The zymotic diseases notified numbered 177, including 123 of scarlet fever, but only 19 cases, of which 13 were scarlet fever, were removed to the isolation hospital. This very small attempt at isolation can hardly be accounted for by the fact that even in such a district the other cases occurred where no necessity for removal arose. It was probably due to the diminutive character of the hospital accommodation available.

Maidstone Urban District.—Maidstone had last year a death-rate of 16·7 per 1000 living. Mr. Matthew Adams issues, as usually, a thoughtful and interesting report, in which sound public health teaching is based on a record of local statistics and sanitary circumstances. One portion of the report deals with the London manure nuisance, as to which the Local Government Board are making some comprehensive inquiries through their medical department. He states that again and again have such diseases as diphtheria, erysipelas and septicæmia been attributed to it, and he is strongly of opinion that no excuse exists for casting so gross a nuisance on extra metropolitan districts as is involved in this London manure business. Mr. Adams advocates the automatic waste-water waterclosets for the poorer parts of his district, and he includes in his report some diagrams of the form which he recommends.

Hanley Urban District.—Hanley had last year a population of 54,846 and a death-rate of 22·3 per 1000. The zymotic rate was 2·5, and it was largely made up of deaths from measles and whooping-cough. Scarlet fever also became prevalent and efforts were made to cope with it by isolation in hospital and restriction in school attendances, including closure of schools. Mr. John Clare enters at some length into the precautions thus taken. A number of unwholesome tenements and houses have been closed and inspection has been made as to certain trades and occupations calculated to affect public health.

Bridlington Urban District.—Mr. W. A. Wetwan reported a death-rate of 19·1 last year, this being an excess largely due to the effects of influenza. The drainage and water-supply are reported as good; but, whilst some improvement has probably been effected as regards scavenging, it is still but imperfectly carried out. Contract work is generally eminently unsatisfactory in this matter, whereas if the authority were to perform the duty themselves there would be no need to discuss whether failure lay with the contractor or with the public themselves. Mr. Wetwan urges a by-law requiring that pig-styes should be at a definite distance from houses. This is an obvious need in many parts of this district, but a similar demand for restricting the keeping of fowls may involve legal difficulties.

Bridlington Rural District.—In this district the death-rate for 1891 was 18·8 per 1000. Mr. Wetwan urges increased action and precautions as to cowsheds &c.; he reports the approaching completion of the Flamborough drainage scheme, the need for water in that part of the district, and the desirability of better scavenging and of decent closet accommodation.

Surbiton Urban District.—The annual death-rate for Surbiton is given as 13·6 per 1000 for 1891 and the zymotic rate as 1·1. Of the 12 deaths making up the latter rate no less than 10 were of diphtheria, the attacks being a succession of cases spreading over ten months, and it is somewhat cold comfort to be told that the causation was a general one and that the probable reason for the diffusion has to be found in recent climatic and atmospheric conditions, "conditions common to the whole of this island, and indeed the Continent too." Damp, overcrowding and want of ventilation are, however, referred to as local causes, and it is to be hoped these have been dealt with. In all, 21 cases of diphtheria and membranous croup were notified, and Dr. Coleman probably touches the cause of the diffusion most closely where he refers to the inability to distinguish between an ordinary throat-affection and mild but infective diphtheria. He suggests that all suspicious cases of throat mischief should be notified; but the danger lies mainly in the cases of those who never come under suspicion at all. The only general sanitary work referred to, apart from the inspector's list, is the thinning out of shrubs round houses, a valuable precaution as regards a town situated in a luxuriant river-valley.

Friern Barnet Urban District.—After giving an account of the infectious fevers prevalent during 1891, the greater number of which were cases of scarlet fever, Mr. Hugh Stott states that the district maintains its ordinary standard of health. He adds that some houses, however, still need a proper water-supply and that sewage from outside the district flows into it and causes nuisance. He also points out the need of by-laws in order to deal with some parts where the soil is waterlogged. The death-rate for last year was only 12·5 per 1000, the zymotic rate being 1·5. For the permanent improvement of the district he urges that the water-supply should be made a constant one, that a disinfecting apparatus and a mortuary should be provided, and that some means should be available for the isolation of first attacks of in-

fectious diseases. If Friern Barnet wishes to maintain a reputation for health and for a low death-rate the sanitary authority should give heed to their health officer's counsel.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6003 births and 3361 deaths were registered during the week ending Sept. 24th. The annual rate of mortality in these towns, which had declined in the preceding three weeks from 19·8 to 18·6 per 1000, further fell last week to 17·2. In London the rate was 15·1 per 1000, while it averaged 18·7 in the thirty-two provincial towns. The lowest rates in these towns were 8·4 in Croydon, 12·4 in Halifax, 12·5 in Wolverhampton and 13·2 in Norwich; the highest rates were 21·9 in Hull, 24·2 in Bolton, 24·4 in Salford and 29·2 in Preston. The 3361 deaths included 605 which were referred to the principal zymotic diseases, against numbers declining from 989 to 747 in the preceding three weeks; of these, 344 resulted from diarrhœa, 58 from diphtheria, 56 from "fever" (principally enteric), 53 from scarlet fever, 51 from whooping-cough, 43 from measles, and not one from small-pox. The lowest death-rates from these diseases were recorded in Croydon, Plymouth, Bristol and Halifax; and the highest rates in Birkenhead, Hull, Salford, Gateshead and Preston. The greatest mortality from measles occurred in West Ham, Gateshead, Salford, Huddersfield and Oldham; from scarlet fever in Nottingham and Huddersfield; from whooping-cough in Nottingham; from "fever" in Huddersfield, Sunderland and Birkenhead; and from diarrhœa in Cardiff, Birkenhead, Sheffield, Leeds, Hull, Gateshead, Newcastle-upon-Tyne and Preston. The 58 deaths from diphtheria included 43 in London, 3 in West Ham and 3 in Birmingham. No fatal case of small-pox was registered in any of the thirty-three towns; two cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 6 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3477, against numbers increasing from 3052 to 3412 on the preceding five Saturdays; 370 new cases were admitted during the week, against 461, 414 and 349 in the previous three weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 114 to 142 in the preceding three weeks, further rose to 152 last week, but were 33 below the corrected average. The causes of 68, or 2·0 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Oldham, Bradford and in seven other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Bristol, Liverpool and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the preceding three weeks from 15·7 to 17·0 per 1000, further rose to 17·9 during the week ending Sept. 24th, and was 0·7 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·8 in Dundee and 15·9 in Edinburgh, to 19·0 in Greenock and 21·6 in Leith. The 499 deaths in these towns included 27 which were referred to diarrhœa, 15 to scarlet fever, 14 to whooping-cough, 12 to measles, 6 to "fever," 3 to diphtheria, and not one to small-pox. In all, 77 deaths resulted from these principal zymotic diseases, against 61 and 70 in the preceding two weeks. These 77 deaths were equal to an annual rate of 2·8 per 1000, which was slightly below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhœa, which had been 24 and 26 in the preceding two weeks, further rose to 27 last week, of which 16 occurred in Glasgow and 4 in Edinburgh. The deaths referred to scarlet fever, which had been 10 and 13 in the previous two weeks, further increased to 15 last week, and included 7 in Glasgow, 5 in Edinburgh and 2 in Leith. The 14 fatal cases of whooping-cough exceeded those recorded in any recent week, and included 6 in Glasgow and 3 in Edinburgh. The fatal cases of measles, which had been 10 and 12 in the preceding two weeks, further rose to 13 last week, of which 7 occurred in Edinburgh. The 6 deaths from "fever" were within one of the number in the preceding week, and included 2 in Glasgow and 2 in Dundee. The fatal cases of diphtheria, which had increased from 4 to 7 in the preceding three weeks, declined again to 3 last week, of which 2 occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 59 and 71 in the preceding two weeks, were 66 last week, and were 14 below the number in the corresponding week of last year. The causes of 33, or nearly 7 per cent., of the deaths in these towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 28·3 and 23·3 per 1000 in the preceding two weeks, further declined to 19·7 during the week ending Sept. 24th. During the past twelve weeks of the current quarter the death-rate in the city averaged 23·2 per 1000, against 17·2 in London and 16·2 in Edinburgh. The 132 deaths in Dublin during the week under notice showed a decline of 24 from the number in the preceding week, and included 15 which were referred to diarrhœa, 2 to "fever," 1 to scarlet fever, 1 to whooping-cough, and not one either to small-pox, measles, or diphtheria. In all, 19 deaths resulted from these principal zymotic diseases, equal to an annual rate of 2·8 per 1000, the zymotic death-rate during the same period being 2·1 in London and 3·9 in Edinburgh. The fatal cases of diarrhœa, which had been 28 and 18 in the preceding two weeks, further declined to 15 last week. The deaths referred to different forms of "fever," which had been 4 in each of the preceding two weeks, declined to 2 last week. The 132 deaths registered in Dublin last week included 41 of infants under one year of age and 35 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed an increase upon those recorded in the preceding week. Five inquest cases and 2 deaths from violence were registered during the week; and 38, or nearly a third, of the deaths occurred in public institutions. The causes of 16, or more than 12 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel Richard P. Ferguson to be Surgeon-Colonel, vice A. Allan, M.D., deceased; Surgeon-Lieutenant-Colonel Robert C. Eaton to be Brigade-Surgeon-Lieutenant-Colonel, vice R. P. Ferguson (both dated Sept. 6th, 1892).

ARMY MEDICAL RESERVE OF OFFICERS.

The undermentioned Officers resign their commissions (dated Sept. 28th, 1892):—Surgeon-Major Charles T. Vachell, M.D., and Surgeon-Captain Charles P. Oliver. The undermentioned Surgeon-Captains to be Surgeon-Captains (dated Sept. 28th, 1892):—John Kerr Butter, M.D., 2nd Volunteer Battalion, the South Staffordshire Regiment, and John Cunningham, M.B., 1st Argyll and Bute Volunteer Artillery.

NAVAL MEDICAL SERVICE.

Staff Surgeon Horace Edward Firmin Cross has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet (dated Sept. 3rd, 1892). Staff Surgeon Alfred Thomas Corrie has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet (dated Sept. 8th, 1892). Staff Surgeon William Berkeley Drew has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet (dated Sept. 18th, 1892). The following appointments have been made:—Fleet Surgeon Valentyne Duke to the *Dreadnought* (dated Sept. 13th, 1892). Staff Surgeons: William Tait, M.B., to the *Cleopatra* and Samuel W. Vasey to the *Nelson* (both dated Sept. 21st, 1892). Surgeons: Charles Strickland to the *President*, additional, for three months' study (dated Sept. 12th, 1892); Hugh W. Macnamara to the *Royal Sovereign* (dated Sept. 6th, 1892); Horace B. Marriott to the *Colossus* and George Ley to the *Hotspur* (both dated Sept. 13th, 1892); Herbert P. Shuttleworth to the *Pembroke*, additional, to be lent to the *Briton* for the training season from Sept. 28th (dated Sept. 15th, 1892); James M'C. Martin

to the *Daphne* and Edwd. C. Ward to the *Hyacinth* (undated); and Erington F. S. M'Kay to the *Herald* and Henry E. South to the *Nymph* (both dated Sept. 23rd, 1892); Robley H. Browne to the *Victory*, additional (dated Sept. 29th, 1892); William E. Home, M.B., to the *Swallow*, Cyril J. Mansfield, M.B., to the *Britannia*, and William A. Whitelegge to the *Volage* (all dated Sept. 28th, 1892).

VOLUNTEER CORPS.

Artillery: 1st Essex (Eastern Division, Royal Artillery): Surgeon-Lieutenant H. Gurney resigns his commission (dated Sept. 24th, 1892).

INDIAN MEDICAL SERVICE.

Surgeon-Colonel W. E. Cates, I.M.S., is permitted to retire from the Service from Sept. 15th, 1892, subject to Her Majesty's approval. The services of Surgeon-Major A. F. Sargent, I.M.S., 3rd Regiment Bombay Light Infantry, are placed at the disposal of the Government for employment in the Civil department. The following gentlemen are appointed to be Fellows of the Madras University:—Surgeon-Major W. R. Browne, M.D., Surgeon, General Hospital, and Professor of Surgery, Medical College, and Surgeon-Major H. Allison, M.D., Fort Surgeon and Professor of Anatomy, Medical College. Surgeon-Major H. K. McKey, Civil Surgeon, Nagpur, is appointed to be in temporary medical charge of the Central Gaol, Nagpur, during the absence of Surgeon-Major T. R. Macdonald on privilege leave.

Surgeon-Colonel Cleghorn, Punjab, has joined the Central Committee of the Lady Dufferin Fund.

Sanction has been accorded to the construction of a new hospital for native troops and followers at Quetta.

The following deaths are reported: George William Powell, retired Honorary Deputy-Surgeon-General, lately residing in Granville-place, Portman-square, died suddenly on Sept. 15th. The deceased joined the Army in 1844, became Surgeon in 1854, Surgeon-Major in 1865, and retired in 1873. Deputy-Inspector-General of Hospitals William Campbell, of Burnsyde, Ayrshire, N.B., late Bombay Army, died on Sept. 19th, at 2, Manor-road, Folkestone, aged seventy-four.

THE PREVALENCE OF VENEREAL DISEASES IN INDIA.

Our contemporary, the *Indian Medical Gazette*, for August contains an ably written article on the remarkably high sick-rate from this cause among the troops serving in all the three presidencies of India. In 1890 no fewer than 34,000 soldiers out of a strength of a little under 68,000 in India passed through the hospital for venereal disease. This our contemporary considers to be nothing short of an alarming state of affairs, demanding the earnest attention of the Government. We have already called attention to the same subject.

MOVEMENTS OF MEDICAL STAFF.

The following officers have embarked for India in the *Euphrates*:—Surgeon-Major Peyton, Surgeon-Captains Eckersley, Beach, Gray, Powell, Thurston, Elliot and Jameson. The following officers are returning to India after sick leave and have also embarked in the *Euphrates*:—Surgeon-Major Croly and Surgeon-Captain Markey. Surgeon-Lieutenant-Colonel A. L. Bunne has obtained sick leave from Bombay. Surgeon-Lieutenant-Colonel Barron has arrived in Cork for duty and Surgeon-Lieutenant-Colonel Stannard has assumed charge of the station hospital at Kilkenny. Brigade-Surgeon-Lieutenant-Colonel Comerford has embarked for Bermuda to assume the duties of Senior Medical Officer in the command, and has been succeeded at the Curragh by Brigade-Surgeon-Lieutenant-Colonel Eaton. Surgeon-Captain Gubbin has embarked for Bermuda on a tour of duty. Surgeon-Captain Fletcher has been transferred to Bombay, Surgeon-Captain Wiles to Birmingham and Surgeon-Captain Nunnerley to Hulme. Surgeon-Captains Bartlett and Holyoake have obtained leave from Bombay, and Surgeon-Captain Wade has been transferred to Tregantle Fort. Surgeon-Captain Sexton has been posted to Templemore and Surgeon-Captain Daly to Dublin. Surgeon-Lieutenant Beyts has been transferred from Edinburgh to Netley and Surgeon-Lieutenant Holt has resumed duty at Portsmouth. Surgeon-Lieutenant Stallkart has been transferred from Edinburgh to Dublin and Surgeon-Captain Bell has embarked for a tour of duty in Bermuda. The undermentioned officers of the Medical Staff, whose tour of foreign service will expire during the trooping season 1892-93, will proceed to England in Her Majesty's troopships doing duty with troops during the voyage:—Surgeon-Lieutenant-Colonel W. F. Burnett, Surgeon-Captain R. G. A. Durant in exchange with Surgeon-Captain J. D. Movi, who exchanged with Surgeon-Captain Hayes; Surgeon-Captain J. W. Buchanan, Surgeon S. J. W. Hayman, and Surgeon A. R. D. Hall. Brigade-Surgeon-Lieutenant-Colonel H. Comerford, now at the Curragh, proceeds to Bermuda as Senior Medical Officer to replace Brigade-Surgeon-Lieutenant-Colonel J. R. Murray, whose approaching retirement next month we alluded to in last week's issue. Surgeon-Lieutenant-Colonel A. W. Duke, M.D., has arrived home from Gibraltar, and Surgeon-Major J. J. Falvey from India.

ASSISTANT PROFESSORSHIP OF MILITARY MEDICINE AT NETLEY.

Surgeon-Colonel E. J. Fairland has been appointed to the above position, vice Brigade-Surgeon-Lieutenant-Colonel W. F. Stevenson, transferred to the chair of Military Surgery in succession to Surgeon-Colonel Godwin. He joined the Army April 1, 1867, and served in the Abyssinian campaign of 1867-68 (medal).

THE SANITATION OF BOMBAY.

It appears that sanitary appliances of English design are not altogether adapted to the requirements of a city like Bombay or to the habits of its people. The corporation of Bombay recently appointed a committee to inquire into the working of house connexions with sewers, and it has now completed its researches. What with narrow streets and gullies, the overcrowding, heat and exceptional climatic conditions, the problem is not an easy one. Still a practical solution of the problem will no doubt be arrived at in the course of the experiments that have been decided on.

DEATHS FROM CHOLERA.

The deaths of Surgeon-Colonel Allan, the administrative medical officer of the Rawal Pindi Division, and of Surgeon-Captain Kenny, which we recently announced, took place at Murree from cholera. It appears that the disease had broken out at Gharial, near Murree, where the Seaforth Highlanders are stationed, and that the above-named medical officers were among the first fatal cases.

BOY VOLUNTEERS.

Sir Evelyn Wood, V.C., is unquestionably one of the most indefatigable and energetic of our general officers. He had only just returned from Germany when he addressed a letter to the masters of all the public schools which had sent parties to join the Volunteer battalions encamped for training at Aldershot in July last. It seems that 440 boys were encamped near Aldershot in 1891, but last July fourteen schools sent up boys and 590 were encamped in one of the fields near Government House. The General says the boys' conduct was exemplary, their health was excellent, there was no sickness or casualties of any kind, and the messing arrangements were good. No doubt the boys liked the outing, and the training did them good and they were well looked after. Sir Evelyn Wood evidently considers this yearly camping out as a capital thing physically and morally for the boys, to say nothing of their acquiring a knowledge of drill and a sense of discipline and obedience which will do them no harm later on in life.

OUR SOLDIERS' FOOD.

Sir Evelyn Wood has manifested much zeal in the soldier's welfare, and especially as regards his feeding. Until quite recently the best was not made of the soldier's rations and groceries, and but little was known as to the means necessary to decide on the quality of the provisions supplied him. The importance of the stock-pot, which exists in the kitchens of most of our households, had not been recognised, whereas under the new system it is, and the food is both varied and well cooked and there is no waste. The soldier of to-day is probably better fed than he ever was before, provided his regiment has had the good fortune to secure the services of a cook thoroughly trained at Aldershot, and to possess officers at the same time who are interested in the subject. One officer from each regiment quartered at Aldershot has been ordered to attend a course of instruction in judging the quality of provisions intended for the soldier's consumption. The object of army hygiene is to keep the soldier out of the hospital, and this is one excellent way of doing it.

THE ACQUIREMENT OF THE RUSSIAN LANGUAGE.

The new regulations that have been published in India regarding the acquirement of the Russian language apply to officers of the Indian Army and of the Indian Medical Staff. These regulations lay down the terms for officers visiting

Russia with reference to service towards promotion and pension and furlough regulations. Officers permitted to proceed to Russia from India who may succeed in qualifying as interpreters, will receive a gratuity of £200 and a further sum of £20 towards the cost of the journey to Russia, plus half of the consolidated sum of £32 or £42 which is allowed to officers who have proceeded from England for travelling expenses to and from St. Petersburg or Moscow, as the case may be.

WORK FOR THE NEW WAR MINISTER.

Our service contemporary the *Broad Arrow and Naval and Military Gazette* directs attention to the matters which will probably be pressed upon the consideration of the new Secretary of State for War. Our contemporary is quite right in stating that the alteration of the regulation regarding the extended length of foreign service is the most important subject. The present regulations press heavily upon officers of the medical staff in the matter of health, and the length of foreign tours of service should, in our opinion, be reduced to what it was before the order for prolonged tours abroad came into force—viz., the term of continuous service abroad should not exceed five years, as recommended by Lord Camperdown's Committee. The amalgamation of the Army Medical Staff and Medical Staff Corps into a "Royal Medical Corps or Staff" is a reform that we have also always advocated, and it was recommended by Lord Morley's Committee.

SCIENTIFIC RESEARCH.

The Government of India have recommended that Dr. D. D. Cunningham, of the Indian Medical Service, who is Professor of Physiology in the Medical College, Calcutta, be given two more years in which to complete his scientific observations. It is well known that he has been engaged for a considerable time past in investigating the origin of cholera, with special relation to the bacillus theory, and it is alleged that his most recent researches on the comma bacilli in cholera are highly important. If so, the publication of his observations, as far as they have extended, would be very valuable at the present time.

Correspondence.

"Audi alteram partem."

THE NOTIFICATION OF DISEASE.

To the Editors of THE LANCET.

SIRS,—I quite agree with Dr. Goodhart that the point he raises "is an important one to a large section of medical men." The case he refers to was a fatal case of diphtheria, the first intimation of which I received in the mortality return supplied to me by the district registrar. I of course at once made inquiries, found that three medical men had been "attending or called in to visit the patient," and wrote to them to ask why they had not certified the case to me. On receiving replies which satisfied me that there had been no intentional concealment of the case I reported to this effect to the sanitary committee, who decided at my recommendation to take no action in the matter. Dr. Goodhart seems to think that only one medical attendant is required to certify a case, and that he was not that one. The words of the Act are, however, perfectly clear: "Every medical practitioner attending on or called in to visit the patient, shall forthwith, on becoming aware that the patient is suffering from an infectious disease to which this section applies, send to the medical officer of health of the district a certificate stating," &c. As a matter of fact, if several medical men see a case and only one certifies it to the medical officer of health, the latter is quite satisfied, as he does not want more than one certificate of one case; but if neither of them certifies it he is bound to report them all to his committee as delinquents. Dr. Goodhart says, "I was further politely informed that as I had sinned in ignorance no action would be taken on this occasion—in other words, I must not be a bad boy again or I should receive a whipping."

In this I think he exactly describes the position, and as he has made it publicly known that he has neglected to certify a case of diphtheria which proved fatal my friendly advice to him is that he should take very great care to certify any case of "notifiable" infectious disease that he may attend or be "called in to visit" in future.

I am, Sirs, yours faithfully,
W. H. CORFIELD, M.A., M.D.Oxon.,
Medical Officer of Health for St. George's, Hanover-square.

Savile-row, W., Sept. 27th, 1892.

FRACTURE AT THE SYMPHYSIS PUBIS WITHOUT INJURY TO BLADDER.

To the Editors of THE LANCET.

SIRS,—The following may interest some of your readers. Some years since, when practising in Yorkshire, I was sent for to see a man (J. W——, aged forty); while sitting in a swing lowered down the face of a rock, working for stone, the rope broke and he was thrown down a great height, falling flat on his abdomen. I examined the man and found nothing wrong, except fracture at the symphysis pubis, the bones overriding one another. I had him placed in bed and passed a broad firm bandage round his body. He lay perfectly still for four weeks, and in twelve weeks was again at his work as a quarryman. One hour after his fall, to my great relief, he passed a good quantity of urine. On inquiry he told me that he emptied his bladder just before he got into the swing, thereby preventing rupture of the organ and saving his life. If men so engaged would only micturate before going up heights for similar work, many a life might be saved, as in J. W——'s case.—I am, Sirs, yours truly,

H. J. RICE, L.R.C.P., L.R.C.S. Edin.

Sandbach, Cheshire, Sept. 24th, 1892.

"THE MIDWIVES' REGISTRATION BILL."

To the Editors of THE LANCET.

SIRS,—Mr. Rowland Humphreys' letter in THE LANCET of last Saturday may in the opinion of many of your readers require a reply from me, for your correspondent calls attention to what he thinks are "some errors I have fallen into." I did not forget that there was a delusive clause in the late Midwives' Bill by which a proof of a certain amount of knowledge was required before registration, but that it was a fair amount I certainly did not know and deny. The midwife's answer to the coroner, "that she had acted as a midwife for twenty years, and that as far as she knew she had never had anything amiss with any patient she had attended," would have been sufficient reason, had the Bill passed, to have placed her on the register of qualified midwives, and I too feel equally sure that her not wilful ignorance would also have been a sufficient reason with the jury to have prevented any punishment following her most reprehensible inaction and the lamentable result of her culpable, although not legal, ignorance. Your correspondent states that it might be desirable, as I suggest, that no midwife should be allowed to act except under the eye and the responsibility of a medical man, but adds, "who is to pay them? for it would be quite impossible for doctors to do all the cheap work thus thrown on them and live on the results." I differ from Mr. Humphreys. I think there are not only in London but in every town medical men who would not object adding to their daily list two or three or even half a dozen of such obstetric calls, and if the patient was too poor to pay for these needed visits the moderate fee of 2*s.* 6*d.* per visit should be defrayed, if a parish case, by the guardians, and if private, by the club or some such society as the London a:... Manchester, or other kindred society which provides medical aid for the industrial classes, and a very slight increase to their present very low rate of weekly payment would be sufficient. I should make my letter, even for a reply, too long did I enumerate the need and advantages and the saving of life that would result from these visits of the qualified practitioner (where a midwife had attended), who would see that the labour was progressing satisfactorily and that the convalescence was neither retarded nor prevented by dangerous or unusual symptoms; but assuredly it was far from my intention that the doctor should "bear" or even cover the misdeeds of the midwife or obstetric nurse, but on the contrary to prevent them. I opposed the late Bill because it appeared somewhat crude and unsatisfactory, but I admired the principles and desires that gave it birth, and from its ashes I look hopefully for such ripe legislation that will ensure increased safety and lessened suffering to the mothers of the poor and, at the same time, am not unmindful

of the interest of the general practitioner, who, like other toilers, lives by the sweat of his brow and is not unworthy of his hire. I am, Sirs, yours obediently,

FREDERICK H. ALDERSON, M.D.

P.S.—In the absence of some system of State medicine for our artisans and industrial classes such societies, as the London and Manchester, which provide medical aid by weekly payments, have become a necessity.

Hammersmith, W., Sept. 27th, 1892.

"PSYCHO-THERAPEUTICS."

To the Editors of THE LANCET.

SIRS,—Dr. William Dale, commenting in your last issue on Dr. Robertson's interesting article on "Psycho-therapeutics," makes, I consider, a somewhat unfair attack upon hypnotism by asserting that it is "merely another form of the miserable farce which, under the name of mesmerism, wrecked Dr. Elliotson's reputation." The physiology of the nervous system was comparatively so little understood fifty years ago that we cannot wonder that Dr. Elliotson was unable to grasp the real causation of so-called mesmeric phenomena, and that, failing the possibility in the then existing condition of knowledge of giving a rational explanation to the effects he witnessed, he endorsed the prevalent theory of animal magnetism. There is no doubt that he lost his head, and by allowing himself to be duped by clairvoyants and spiritualists he injured his reputation. Now things are widely different, and modern research has enabled recent scientific exponents of hypnotism to place the practice of hypnotic suggestion on a rational basis. Whatever may be the opinion of individual practitioners as to the value of therapeutic hypnotism, everyone must admit that the study of suggestion by such masters as Charcot, Bernheim, Preyer and Tamburini has immensely added to our knowledge of psychology and offered us a key to the understanding of the action of the mind on bodily conditions and functions. The study of suggestion, with or without hypnotism, will help the physician to cultivate that "tact and personality" to which your correspondent attaches so much practical importance in the combating of disease. It seems to me somewhat unfair that the question of the value of hypnotism should be treated in the offhand style adopted by Dr. Dale, and I think he will modify his wholesale condemnation of the practice of hypnotic suggestion if he will study some of the recent literature on the subject and will apply the knowledge thereby gained to the treatment of a few properly selected cases. I am, Sirs, yours obediently,

CHAS. LLOYD TUCKEY, M.D. Aberd.

Green-street, W., Sept. 25th, 1892.

"DRUNKENNESS AMONG WOMEN."

To the Editors of THE LANCET.

SIRS,—In your issue of to-day in a short annotation, you say "no one who has his eyes open can fail to see that women are fatally losing modesty in the way in which they enter public-houses." This is very deplorable, but it is far sadder to observe that the facilities for obtaining stimulants afforded by the grocer's and confectioner's licence necessitate no violence to the sense of female propriety, and young girls or older women who would shrink from the door of a public vault complacently sit and chat over a biscuit and glass of wine, or sandwich and glass of ale, in these shelters, which, terrible to contemplate, have proved a *facilis est descensus Averni* to many.

I am, Sirs, yours truly,

JOHN DRUMMOND, L.R.C.P. Edin. &c.

Malvern, Sept. 24th, 1892.

VACCINATION STATISTICS.

To the Editors of THE LANCET.

SIRS,—With reference to the suggestion in THE LANCET of the 24th inst., that the evidence obtained in the four fatal cases of adult hæmorrhagic small-pox which occurred last year in Birmingham may not have been "unequivocal," permit me to explain that I took the precaution of obtaining evidence in writing before I wrote to *The Times* on the subject. As to the placing of these fatalities among the "unvaccinated class," I understand that they would go into the "not stated class," although in two of the cases it was well known that they had large, deep marks of vaccination. As this neglect has been shown to exist widely, it is obvious that no arguments can safely be drawn from the Registrar-General's statistics in favour of vaccination; and the fact that our medical officer of health refused to help me in tracing the relatives by giving me the addresses of the fatal cases leads, not unjustly, to the inference that the omission to enter the true facts, as required by the Registrar-General on the death certificates, is not always accidental. Whether nowadays "the mere fact of vaccination having been performed at all is considered by the profession to be absolutely protective against fatal small-pox during the whole of life" or no, it cannot be denied that it was on an assurance that it was thus absolutely protective that the compulsory law—which so nearly concerns us guardians—was passed. But if the new claim be now accepted that "vaccination, efficiently performed and reinforced by revaccination, is—in the healthy—almost absolutely protective against the ravages of small-pox," then we guardians have to consider the notorious fact that sanitation without vaccination in the Leicester and Keighley Unions is also "almost absolutely protective." In the latter town it is protective even without isolation. Therefore—even conceding, for the sake of argument, and against the evidence of Mr. Farn before the Royal Commission, that guardians are able to ensure that vaccination can be "efficiently" performed, and that a man sickened with cow-pox can be "healthy"—the at least equally efficient Leicester and Keighley plan commends itself to a guardian as cheaper and less risky than the system which failed to keep small-pox out of well-vaccinated but insanitary Sheffield in 1887. If "year by year in this country the numbers of the unprotected are increasing" and small-pox is on the whole decreasing, then the "protection" and the immunity are in inverse proportion to one another, and the latter cannot be due to the former, but to some other cause, probably to better sanitation.

Lastly, permit me respectfully to protest against your terming me a "prejudiced inquirer." As a guardian I am compelled by my duty to the poor and the ratepayer to investigate this question. If after careful inquiry I am driven to accept the conclusions of Dr. Creighton and Professor Crookshank, why should the intellectual process expose me to this aspersion? I feel it the more from THE LANCET, because that journal has not yet itself seriously controverted the facts and arguments of those scientists.

I am, Sirs, yours faithfully,

A. PHELPS,
Major-General, F.S.S.

Edgbaston, Sept. 27th, 1892.

*** The views upon this subject held by our correspondent are so utterly at variance with our own that it would be useless to waste time and space in discussing them. We must agree to differ. We would, however, point out that it will be long before sanitation has driven away all infective diseases, including small-pox, from our midst; and that even the vigilance of Leicester and Keighley may some day be surprised by an outbreak in which it is certain that the people unprotected by vaccination will suffer cruelly; moreover neither Dr. Crookshank nor Dr. Creighton has *proved* that vaccination is of no efficacy.—ED. L.

THE LOCAL GOVERNMENT BOARD AND THE ROYAL COLLEGE OF PHYSICIANS

To the Editors of THE LANCET.

SIRS,—Some misapprehension seems to have arisen as to the correspondence which recently passed between the Local Government Board and the Royal College of Physicians; and it is in the main due, I think, to the circumstance that the letter which the Secretary, Sir Hugh Owen, addressed to the College, and which you published on the 17th inst., has not been carefully read. The letter relates to that which would become necessary provided regulations as to cholera had to be issued under the Public Health Act, 1875. Section 133 of that Act, following the lines of the old Diseases Prevention Act, empowers local authorities "themselves to provide or to contract with any person to provide a temporary supply of medicine and medical assistance for the poorer inhabitants of their district"; and Section 134 allows regulations to be made,

amongst other things, "for the provision of medical aid and accommodation."

You rightly say that it is the "sick poor" who will mainly need assistance; it is this which regulations under the Act contemplate by the use of the words "poorer inhabitants." You properly say that early medical attendance and nursing are as essential as medicines. Cholera regulations under those sections always require the local authorities to provide a special staff of medical visitors and of nurses for the purposes of a house-to-house visitation such as you also advocate; and such intervention is only "until other provision for [the] medical attendance" of the sick is made. The letter addressed to the College had no need therefore to refer to these requirements, which are already met. But there remained "the supply of medicine" which the Act required the local authorities to provide without charge for distribution by their medical visitors and at dispensaries, to be open day and night, for such "immediate medical treatment" as the regulations specified. It was as to this supply by town councils, local boards &c., of "medicines," together with any necessary medical appliances, that the Local Government Board asked the College of Physicians to advise them, and through them the local sanitary authorities of England and Wales. And for reasons which are thus quite obvious, they asked nothing more than this.

I am, Sirs, yours faithfully,

Sept. 26th, 1892. PUBLIC HEALTH.

ISOLATION IN BOOTLE.

To the Editors of THE LANCET.

SIRS,—Your reference to my action, at our recent council meeting, in opposing a proposition to erect a pavilion for the treatment of diphtheria, being based upon erroneous statements, I wish to give the facts of the case and to explain the cause of my opposition.

The fever hospital here was opened only six years ago, having been built under the supervision of the late Alderman Matthew Hill, M.D., consulting physician, according to plans approved of by the Local Government Board. The then chairman of the health committee, Alderman Williams, confirms the fact, which I already understood, that complete arrangements had been made in the Western Pavilion for the separate treatment of cases of diphtheria; and the medical officer of health, referring to the fever hospital in one of his annual reports, says: "Bootle need not now, as in former years, fear the outbreak of any epidemic." Feeling confident, therefore, that ample provision had already been made for diphtheria, I opposed the erection of a pavilion for those cases. There was no truth in the statement that a diphtheria patient was taken into the hospital, caught the fever and died. The chairman now admits that he made a mistake, and the resident medical officer denies that a case of diphtheria has ever been treated in the wards along with any other disease. The statement that a fever patient, while under treatment in the hospital, contracted diphtheria and died is not supported by any evidence; in fact, there is no record in the medical officer's published annual reports of any death from diphtheria having occurred in the hospital since its establishment.

I am, Sirs, yours faithfully,

Bootle, Sept. 28th, 1892. T. M. WILLS.

"THE STAMPING OUT OF GLANDERS."

To the Editors of THE LANCET.

SIRS,—In one of your annotations on Sept. 17th satisfaction is expressed that more enlightened and efficient regulations are about to be enforced against glanders. I should be very glad to think so, but all that the Board of Agriculture can do under the existing Act of Parliament is to issue an Order permitting local authorities to be more efficient. There has been twenty years of permissive legislation for the diseases of animals, but no success has ever attended it; only when compulsory enactments have been made has success followed. I sincerely hope that those who know something of glanders and of the working of the Contagious Diseases (Animals) Act will speak out on this rumoured attempt of the Board to furbish up their old weapons—weapons their advisers have so often described as inefficient. The last paragraph of your annotation says: "So long as horses are permitted to come from infected regions we shall always be liable to its introduction." This is true, not only of foreign countries, but of our own island. If we stamp out glanders in Edinburgh and leave it alone in Glasgow, Scotland is not likely to remain free. If we stamp it out in London and allow it to exist in Birmingham we shall have to continue the work in England *ad infinitum*. A permissive order is not what is wanted. An amendment of the Act is a *sine quâ non* to stamp out the disease. There are, I believe, thirty infected counties, and unless the disease is attacked in each district at the same time and in the same manner it will disappear in one place only to arise again by the introduction of horses from infected places. London is the great centre of the disease, and if the County Council is not afraid to spend the money of the ratepayers it will undoubtedly reduce the disease in a few years to a very small bulk. It must be remembered, however, that the five surrounding counties are all infected, and that until all their diseased horses have been killed or brought into London occasional reinfection must be expected. There is, as you say, "no great difficulty in combating the disease," but that depends on general and uniform measures being adopted over the whole country—a course which can only follow an amendment of the Act. Therefore the first step should not be made until Parliament meets.

I am, Sirs, yours truly,

Sept. 20th, 1892. JOHN ATKINSON, F.R.C.V.S.

*** We quite agree with our correspondent as to the absolute necessity for general and uniform measures being applied to the extinction of glanders, and that these should be compulsory. It will be the business of Parliament to deal with this question, and in a comprehensive and enlightened spirit. Leaving the malady to be handled by the local authorities is simply losing time, throwing away money and causing needless embarrassment to horse owners. The amendment of Acts of Parliament applicable to the contagious diseases of animals should have been undertaken by the Board of Agriculture long ago, as glanders is now, by all accounts, widely prevalent.—ED. L.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Hospital Extension: Clinical Hospital, Cheetham Hill-road.

FOR many years past the work of this excellent charity has been impeded by reason of the cramped and otherwise unsuitable character of its administration. The out-patient department has hitherto been placed too close to the wards of the hospital, and as a consequence there is serious and constant danger that various kinds of infection may get transmitted from without to the surgical patients under treatment in the hospital, to the no small risk of the latter. To remedy this defect a new administrative block has just been completed, which, although conveniently situated for central administration, is nevertheless far enough removed from the hospital proper to render almost impossible the extension of infection from the out-patients to the occupants of the surgical wards. The new out-patient department forms a handsome structure facing the Cheetham Hill-road, and adjoining the Jewish synagogue. It consists of a large and commodious waiting-room, with smaller rooms for consultation and convenient offices for dispensing and for the performance of minor operations. The building has been erected at a cost of about £2000, on a site presented by the trustees of the late Mr. Daniel Proctor.

New Cancer Hospital.

Stanley House, a large and well-appointed residence on the Stanley Grove estates, recently presented to the Owens College by the Whitworth trustees, has now been considerably altered and adapted to the purposes of a hospital for about forty cases of malignant disease. The building stands in its own grounds, which are picturesque and very pleasantly situated, and will form a hospital which may be considered fairly accessible to the population of Manchester and the surrounding district. The Stanley House Hospital is intended to form the nucleus of a much more extensive establishment to be eventually provided on this estate for the equipment of our great school of medicine. The hospital will doubtless be utilised for teaching purposes, as well as for purposes of original research, by the medical staff of Owens College.

Monsal Hospital.

According to newspaper reports of the last meeting of our council, the representatives of Newton Heath are much concerned at the considerable extensions that are now apparently being pushed forward at the Monsal Hospital, which is within the Newton Heath township of the city. On inquiry, however, it turns out that the authorities do not at present contemplate the extension of the permanent hospital accommodation at Monsal. The complete separation, however, of small-pox from fever at the hospital is now being asked for by the city corporation, and accordingly an attempt is being made to accommodate each disease in a separate and distinct hospital, space being provided within the small-pox hospital enclosure for temporary extension, in the event of epidemic prevalence of that disease. The two large wooden pavilions which were recently built for the isolation of cholera patients in case of necessity will probably form sufficient means of dealing with such limited outbreaks of small-pox as are likely to require hospital provision in ordinary non-epidemic times.

Refuse Disposal.

In view of the recent enlargement of the city and of the increase in the amount of night soil which consequently requires removal, the cleansing committee of our corporation find themselves confronted with a similar difficulty to that with which they had to deal a few years since when, in consequence of a considerable enlargement at that time of the municipal boundaries, it was found necessary to acquire the Carrington Moss estate, and to convey thither such portions of the excretal refuse of the city as could not be converted into poudrette or "bag manure" as it is locally termed. When regard is had to the circumstance that by the City Extension Act of 1890 the area of Manchester was just doubled and its population increased by more than a third, it will readily appear that the limited acreage of Carrington Moss has now become insufficient to cope with existing requirements. In this dilemma the cleansing department have, after diligent search, eventually succeeded in securing an estate 1800 acres in extent at the village of Rampton in Nottinghamshire, to which they propose to send 20,000 tons annually of the midden refuse, for the disposal of which they have now accepted the responsibility. On Tuesday last Mr. Joseph Smith, engineering inspector to the Local Government Board, held an inquiry at the Manchester Town Hall with reference to an application by the city corporation to borrow £60,000 for the purchase of the Rampton estate. At this inquiry, and again at the adjourned inquiry, which took place at Rampton on Thursday last, considerable opposition was shown to the scheme on the ground that much local nuisance, as well as pollution of the watercourses, would accrue as the result of the proposed operations. The inquiry has been still further adjourned to Wednesday next, when further evidence will be heard at Retford, a neighbouring town, which is conveniently situated for the purpose. The inspector will probably complete his inquiry on Wednesday, and both parties to the suit are naturally anxious that the Local Government Board should lose no time in communicating to the City Council their decision on a question which is of very much more than local importance.

Sept. 27th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle Hospital Sunday Fund.

THE annual meeting of the Newcastle Hospital Sunday Fund, which has now reached its twenty-second year, has just been held. The report showed that last year £4744 had been collected, being the largest sum yet recorded. There was a decrease, however, in the amount received from factories &c.; but the committee explained that this did not necessarily mean that the contributions of the workmen were falling off, as weekly and fortnightly collections were made at many places, which the workmen forwarded directly to the medical charities in which they were interested. The expense of managing the fund was just 7½ per cent., an outlay so small as to be scarcely equalled by any other fund of the kind with collections extending over such a large area. The committee aim at the future collections reaching £5000 per annum, and they would, it seems, appear to be gradually working up to that amount.

Fatal Carriage Accident to a Surgeon.

A very sad accident has occurred to Mr. R. C. Richards, M.R.C.S., of Shotley Bridge, Durham, which cost him his life. Mr. Richards, with two friends, was driving in the city of Durham on Wednesday, Sept 21st—a dark night—and not being acquainted with the streets, which in many places are dark and narrow, the vehicle came in collision with some railings and he and his friends were thrown out. Mr. Richards sustained a fracture of the skull with concussion of the brain. He was removed to the Durham County Hospital, where he died in a few hours. The coroner at the inquest said the accident was distinctly traceable to the misplacement of the lamps, and the jury, in their verdict of "Accidental death," added a rider to be sent to the Durham corporation advising the fixing of a lamp at these dangerous railings to warn drivers and others.

Want of Ventilation and Bad Air.

At a late meeting of the Jarrow Sanitary Committee a discussion took place on the prevalence of measles. The medical officer was empowered to close the Ellison Schools for two months. It was submitted by a member that if the schools in the town had proper ventilation these continued outbreaks of epidemic disease would not arise; the infant schools, it was stated, were in many cases overcrowded with children from three to six years of age. At Gateshead an inquest has been held on a boy aged six years and a half, who died from syncope, a fatality which would appear to have been caused by foul air. An assistant teacher said she was engaged in opening a window for ventilation when she heard a noise and saw that the little boy had been very sick. She carried him outside and sent for medical aid, but he died almost immediately. An inquest has been also held at Walker touching the death of a young man named Bandon, aged eighteen, a well-known cyclist. It was proved that he died from suffocation when taking a hot bath heated by gas, and that he had made an attempt to save himself by running off the hot water. The bath, it was shown, had been fixed only the previous day, and the deceased was the first person to use it.

The Proposed Lunatic Asylum for Middlesbrough.

A committee appointed by the Middlesbrough corporation was engaged last week in inspecting the various sites which had been suggested for the proposed lunatic asylum for Middlesbrough.

Munificent Gift to Cumberland.

Mr. Simmond, a wealthy resident of Southport, has announced his intention of giving the county of Cumberland £20,000 for hospital purposes, £1000 of which is to be used for the building of a cottage hospital at Penrith.

Newcastle-on-Tyne, Sept. 28th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Insanity: its Causes and the Question of Increase.

IN the third annual report on the Certification of Lunatics in the Barony Parish, Glasgow, Mr. Carswell, the certifying physician, makes some remarks of more than usual interest. Dealing first with the supposed increase in insanity, he states that there is no evidence to show that this condition is becoming common. It is true that there has been an increase in the number of applications for admission to the parochial asylum and a small increase in the number actually certified and admitted; but the cause or causes of this have nothing to do with any actual increase in lunacy or even possibly of nervous diseases. It seems that persons suffering from delirium tremens, hysteria and various states of excitement and stupor are reported to the inspector of poor, who is supposed to have facilities at his command for dealing with such cases. These patients are troublesome at home; general hospitals do not receive them, or do so only after formalities preventing immediate removal. Whether these transient disturbances of the nervous system are on the increase or not there can be no doubt that there is now greater readiness on the part of the public to avail themselves of the advantages of public institutions, and Mr. Carswell is inclined to ascribe to the latter consideration any increase in the number of lunacy applications to the inspector of poor. Mr. Carswell thinks there is no reason for supposing that insanity is increasing, but points out the danger

of medical opinion regarding the certification of lunatics becoming conformed to the pressure of public sentiment. Opinion, he says, has shown a tendency to expand in regard to the degree of mental disturbance which requires asylum treatment; and this opinion he says has come about chiefly as a part of a general social movement towards relieving individual persons of unusual or special burdens at the public expense. Mr. Carswell refers to a desire on the part of the profession for some provision whereby temporary care may be secured for the transient forms of nervous disease and a better basis obtained for the certification of lunatics. This has been attempted at Barnhill Hospital by the establishment of wards where special supervision is exercised over cases of a temporary nature, an arrangement under which it becomes possible to make a diagnosis of a definite form of insanity requiring asylum treatment, and to make this the only ground on which a person is certified as insane. The value of such wards is seen in the fact that there were treated in them in the past year 99 cases of non-certifiable disorder, the total for the past three years being 238. During last year there were 345 persons reported to the inspector of poor as insane; of these, 192 were at once certified and removed to an asylum. Of the 153 doubtful cases remaining, some were dealt with by other parishes, some by friends, while 105 were sent to the wards at Rainhill for temporary treatment and watching; of these 105, only six were afterwards certified, the remaining 99, as above noted, requiring only temporary care. The importance of such probationary wards is thus manifest. Mr. Carswell states that the one outstanding fact illustrated by the statistical tables is that insanity is the result of various diseased or abnormal conditions of brain and nervous organisation and function, due to (*a*) inherent defects of brain and nervous organisation; (*b*) to degenerative diseases of brain structure; and (*c*) to diseased states of the blood-supply to the brain. All these diseased states of the organ of mind may be prevented just as, and only as, diseased conditions of other organs are prevented, by due regard to the ordinary laws of health. Unwise marriages, imprudence and intemperance in conduct, and unhealthy conditions of living generally produce insanity, just as the same conditions in other subjects produce phthisis and other similar diseases. It is a common error to suppose that a large amount of insanity is caused by the high pressure of modern life, modern educational methods and so on. It is well that people should understand that the real causes are nearer their own lives and conduct, and therefore are more entirely under their own control, than is commonly supposed.

Health of Aberdeen.

Fever is on the increase in Aberdeen, 66 cases of measles and 40 of scarlet fever having been reported last week. The City Fever Hospital is full and large numbers of cases have to be refused admittance. The preliminaries for extensive additions to the hospital, to cost £12,800, are being pushed rapidly forward.

Aberdeen Royal Infirmary.

The new surgical pavilion of this hospital is now completed and ready for use. It contains accommodation for 145 patients, the wards being situated on three floors, and comprising 6 general wards, 2 eye wards, 2 lock wards, 1 ward for diseases of women and several isolation rooms. On the ground floor are two large operating theatres, the ophthalmic department, the directors' room and offices for the clerk and treasurer. A separate block contains an excellent post-mortem theatre. Electric light is used throughout. The buildings are to be honoured by a visit from Princess Louise, Marchioness of Lorne, and the Duke of Connaught on Oct. 4th, when the Princess will formally open the wards. With these wards in use it will be possible to transform the old building into an administrative block, which, with the medical pavilion to be built next year, will complete the infirmary.

Professor Ogston.

The announcement that Dr. Ogston has been appointed one of Her Majesty's Surgeons-in-Ordinary for Scotland was received with high approval as well by the laity as by the medical profession in the north of Scotland. Dr. Ogston had the honour of being received by the Queen at Balmoral on his appointment.

Sept. 27th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Vice-Regal Appointments.

THE following appointments, it is stated, have been made by his Excellency Lord Houghton:—Physician-in-Ordinary, C. J. Nixon, M.D. R.U.I.; Surgeons-in-Ordinary, R. F. Tobin, F.R.C.S.I., and Arthur Chance, F.R.C.S.I.; Surgeon-Oculist, A. H. Jacob, M.D. T.C.D., F.R.C.S.I.

Precautions against Cholera.

The Cork rural sanitary board, having received an offer of a hulk from Sir J. Arnott for the purpose of a floating hospital for cholera patients, Mr. Hodges, with Surgeon-Lieutenant-Colonel Barry and others, made an inspection in order to select a vessel for the purpose. They have reported that the *Mont Blanc* was admirably suited for a hospital of the kind. The deck space is about 150 ft., with a breadth of 24 ft. inside the bulwarks, allowing ample accommodation to construct a hospital ward 60 ft. long by 24 ft. wide. In addition there will be 45 ft. aft of the hospital ward which can be utilised for medical attendants and nurses' quarters, kitchen, dispensary, disinfecting chamber &c. The intercepting hospital will be used for small-pox and other infectious diseases. The Drogheda guardians have placed an iron hut, to serve as an intercepting cholera hospital, near the Maiden Tower, at the mouth of the Boyne. The people in the vicinity have, however, expressed their hostility to the project, and the hut has been guarded by police night and day to prevent its h reatened destruction. A memorial has also been sent to h e Local Government Board asking for its removal, but he Board have replied that the temporary cholera hospital will be maintained, no matter at what risk or cost. The military authorities at Waterford have asked the guardians in case the cholera broke out in that city if they would set apart a room in their cholera hospital containing eight beds, with a nurses' room adjoining, for the reception of soldiers who might be attacked with the disease. The guardians have unanimously refused to provide separate hospital accommodation for soldiers, on the ground that it was the duty of the military authorities to make the necessary arrangements to treat soldiers attacked by the disease.

Wanderings of a Needle.

A woman named Margaret O'Grady about two years since accidentally swallowed a needle and last week complained of a disagreeable sensation in her shoulder. On examination at Mercer's Hospital it was found that the pain was due to the needle, and it was extracted without difficulty.

Insanitary Condition of Cookstown Courthouse.

Last week the revising barrister adjourned the sessions *sine die*, or until the building shall have been placed in a proper sanitary condition. Since then the work of correcting the voters' list has been carried on in another building.

Mr. A. E. Wynne, late house surgeon to Mercer's Hospital, has been presented with an illuminated address and a purse of sovereigns.

A woman named Cassells died yesterday at Warrenpoint at the reputed age of 108 years.

Sept. 27th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Subcutaneous Injections of Thyroid Extract as a Remedy for Myxœdema.

THE belief in the importance to the animal economy of the presence in the normal state of such bodies as the thyroid, supra-renal capsules &c. is steadily gaining ground in this centre of medical activity. That organs unprovided with excretory ducts do form some product which is reabsorbed into the blood is proved by the disastrous effects following their removal. The development of myxœdema in persons whose bronchocelic thyroids have been removed is a phenomenon familiar to all practitioners of medicine. It is further proved by the experiments of Hédon of Montpellier already communicated by me to THE LANCET that the continued vitality of a grafted portion of the pancreas ensures the animal against diabetes, even though the intra-abdominal portion be excised. That condition is, on the contrary, induced by the total ablation

of the normal but evicted pancreas, and also by the destruction of the grafts, the intra-abdominal portion being left *in situ*. As regards myxœdema, Professor Bouchard reports (Association Française pour l'Avancement des Sciences [Congress at Pau], September 19th, 1892), two cases recently treated by him at the Charité Hospital by means of injections of thyroid juice. Both patients were females, and the improvement was, in each instance, extraordinarily rapid. This statement is confirmed by Dr. Roger, who tells me that the effects of the application of the method were astonishing. The œdematous turgescence of the face, eyelids, lips, hands and forearms vanished rapidly, and this had the effect of appreciably diminishing the body weight. The improvement in the functional symptoms—slowness of speech, intellectual torpor, difficulty of locomotion—was no less striking. In both the subjects the temperature, which was subnormal, rose after the injections, and each dose of the thyroid extract was productive of such a sensation of warmth that they could abandon the habit they had contracted of remaining all day in bed fully dressed. Another notable result of the injections was diuresis, which was synchronous with the subsidence of the œdema. It is, however, only right to mention that these favourable results were not procured without some degree of discomfort being experienced by the sufferers. The local reaction was trifling, but headache and pains in the chest and limbs compelled M. Charrin (M. Bouchard's collaborator) to suspend the treatment more than once, and resume it after an interval of five or six days. As to the prognosis, MM. Bouchard and Charrin incline to the belief that the improvement, striking though it be, will prove to be only temporary, and they profess their inability to regard the method as a curative one. "Qui vivra verra."

The Importance of Attitude in the Auscultation of Children.

Another instructive communication made at the Pau Congress was one by Dr. Azoulay of Paris on the above-mentioned subject. The difficulty often experienced in analysing and localising abnormal heart sounds in the very young is known to most of us. The reason is that in the child the following elements come into play—viz., great rapidity of heart beats, the complicated character of the bruits and their vagueness. In such cases the puzzled practitioner contents himself with the hypothetical diagnosis of peri- and endo-carditis. Dr. Azoulay states that he has devised a means of rendering the problem much easier of solution. Dr. Jules Simon and himself have applied the method at the Paris Children's Hospital, and have thus been enabled to localise the extra- and intra-cardiac abnormal sounds. Dr. Azoulay places his little patients in the following attitude: trunk horizontal, dorsal position, arms raised vertically, lower limbs completely flexed, head raised. In this position of the body the normal sounds are considerably reinforced while the beats are slowed; consequently the abnormal sounds are intensified and better localised. The assumption by the patient of the above position notably increases the pericardial friction sound. The utility of variations of attitude is great in examinations for life insurance and in the examination of recruits. If a person supposed to be in good health experiences, when lying down, dyspnœa and arythmia, and if the heart beats are not slowed—all of which symptoms are absent in the upright attitude—a lesion of the myocardium may be diagnosed and a fatal issue from asystole at a date more or less remote, according to the intensity of the above symptoms expected.

A Method of Sterilising Water.

Some weeks ago I supplied the readers of THE LANCET with the details of a method of sterilisation by filtration advocated by MM. Babès of Buda-Pesth. Dr. Burlureaux, Professeur Agrégé at the Val-de-Grâce Military School, has devised yet another sterilising proceeding which has the merit of simplicity. Bacteriological researches have established the fact that, in depriving water of its lime salts, it is at the same time rendered free from microbes. Clarke's process (addition of quicklime) is relied on to rid the water of its calcium carbonate, and sodium carbonate is employed in the case of specimens containing calcium sulphate. In practice Dr. Burlureaux recommends the use of a powder which is composed of lime, sodium carbonate, alum and ferrous sulphate in varying proportions, according to the degree and kind of hardness of the water. For the dreaded Seine water the powder recommended is thus composed: Quicklime, 9 parts; carbonate of sodium, 5; powdered alum, 1; powdered iron sulphate, 1. As a rule, from thirty to fifty centigrammes would sterilise a litre of water. The powder is added overnight and the water decanted in the morning for consumption. A knowledge of this simple means of sterilisation—based as it is on scientific data—will perhaps be found useful in these times of cholera.

Paris, Sept. 27th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Human Epidemic Bill.

THE conference on the new Human Epidemic Bill for the whole empire began in the Imperial Office of Health yesterday, and is expected to last several days. Dr. Koehler, Director of the Office of Health, presides, and Drs. Koch, Pistar, Gerhardt, Schweninger, Kerschensteiner and Pettenkofer are among the members.

How to Get First-rate Drinking-water.

Dr. Hans Brackebusch, whose proposal for the disinfecting of water on a large scale I have already alluded to, answers inquiries as to the best method of disinfecting water for household use as follows: "Fill a stone vessel capable of holding about twenty litres to within a hand's breadth from the top with water, add three heaped tablespoonfuls of cement, and stir the mixture with a large wooden spoon for five minutes. The water then clears very quickly, and is fit for washing the body and for cooking everything except pulse. To get drinking-water, filter through coffee-paper into a carafe and add seltzer till the turbidness resulting at first disappears. The cement contains so much free lime that the killing of the bacilli is certain. The dissolved lime is converted by the carbonic acid of the seltzer into bicarbonate of lime, the substance to which mountain water owes its freshness. The cement must be fresh, and must not have lain beside smelling substances. Five pfennigs' (a little more than a halfpenny) worth of seltzer suffices for five litres of water."

Professor Ernst Beckmann.

Professor Ernst Beckmann of Giessen has been called to Erlangen. He established himself first as a private lecturer, and was then appointed Extraordinary Professor at Leipsic, where he was also Professor Ostwald's first assistant in the Chemical Institute. He was called to Giessen only last year, and taught chemistry there. His writings have appeared for the most part in the *Journal of Practical Chemistry*, the *Periodical of Analytical Chemistry* and the Reports of the German Chemical Society.

Ancient Hygiene.

The 156th number of the Collection of Popular Scientific Lectures, edited by Professors Virchow and Wattenbach, contains an essay on Ancient Hygiene by Professor Hagen of Berne, an important part of which is a survey of the opinions of the Roman military engineer Vitruvius on architectural hygiene.

German Death-rates.

The death-rates of the German cities in the week which ended on the 3rd inst. were as follows:—Elberfeld 17·8, Nuremberg 18·9, Barmen 20·3, Bremen 20·7, Stuttgardt 22·6, Berlin 24·7, Dresden 25, Dantzic 26, Frankfort-on-the-Main 26·8, Munich 27·6, Königsberg 29, Strasburg 29, Düsseldorf 29·4, Aix-la-Chapelle 31·4, Halle 32·4, Cologne 33·7, Krefeld 34, Stettin 35·1, Breslau 36·2, Leipzig 36·4, Brunswick 36·8, Magdeburg 37·6, Hanover 38·9, Chemnitz 44, Altona 49·7, Hamburg and its suburbs 355·6.

Miscellaneous Items.

The German Government and the Society of German Women have established a hospital at Cameroons.

Army-Surgeon Dr. Kohlstock, who served for a year as medical officer in the German force in East Africa, has been appointed to the newly-founded chair of Tropical Hygiene in the Berlin Seminary for Oriental Languages.

Dr. Eduard Schubert, of Frankfort-on-the-Main, known as an investigator of the life and writings of Paracelsus and as a writer on that subject, died a few weeks ago.

Berlin, Sept. 27th.

ISLINGTON INFIRMARY.—On September 22nd the guardians met again to decide upon the site of the proposed new infirmary. After some discussion, the Board resolved that a deputation should wait upon the trustees of the Highgate Hospital, with a view to purchasing it.

Obituary.

GEORGE DIXON LONGSTAFF, M.D. EDIN., L.F.P.S. GLAS.

GEORGE DIXON LONGSTAFF, who died at his residence, Butterknowle, Wandsworth, on Friday, Sept. 23rd, in his ninety-fourth year, was born on March 31st, 1799, at Bishop Wearmouth, in the county of Durham. At Edinburgh, in 1828, he obtained the degree of M.D., in which university he was for some time assistant to Dr. Hope, Professor of Chemistry, and in that capacity is believed to have been the first teacher of practical chemistry to medical students in this country. For some years he practised as a physician at Hull, and was one of the first lecturers at the Hull and East Riding School of Medicine, the formation of which institution, indeed, was largely owing to his exertions. In 1838 he married Maria, eldest daughter of the late Henry Blundell, J.P., of Hull, by whom he leaves two sons. After some years' residence in America he busied himself with mercantile affairs, and for many years acted as chairman of the firm of Blundell, Spence and Company, Limited, remaining a director of that company till his death. He was an active supporter of Canon Wilberforce's anti-slavery movement; and during the Chartist agitation of 1848, though he sympathised with many of the objects of the Chartists, he nevertheless acted as a superintendent of special constables and induced many Chartists to take the side of law and order. Dr. Longstaff was a frequent lecturer at Mechanics' Institutes, an educational movement which he spared no pains to promote. His interest in the spread of education was, moreover, displayed by the presentation, in 1887, of a reading room to the Wandsworth Free Library, founded under the auspices of the Free Public Library Commission, of which he was chairman. He was a founder and Vice-President of the Chemical Society of London, and for many years acted as chairman of the Royal Maternity Charity. He was one of the first members of the Wandsworth District Board of Works, and resided in that parish for upwards of fifty years.

JOHN CHURCHILL, M.R.C.S., L.S.A. LOND.

THE deceased gentleman whose remains have been deposited in the family vault at Egmont after cremation at Woking died on Friday, Sept. 2nd, at his residence, Hall Croft, Gosforth, Carnforth, Cumberland. He was born on the 4th of September, 1815, at Chertsey, in the county of Surrey. After serving an apprenticeship to a surgeon in that town he entered at Middlesex Hospital; subsequently obtaining the diploma of the Royal College of Surgeons. He was elected house surgeon to the Whitehaven Infirmary in 1843, but left this institution three years afterwards and went to London, leaving the metropolis after a stay of only one year for a vacancy which occurred at Gosforth. In 1880 he was placed on the Commission of the Peace for the county. In local affairs he took a very great interest, and the legacies which he left under his will to the following institutions show in a marked degree the spirit of benevolence which characterised the deceased gentleman. He has left legacies to the Whitehaven and West Cumberland Infirmary, of which institution he was a life governor; to the Middlesex Hospital, London; Gosforth Church building and augmentation funds; Seaseale Church building fund; Discharged Prisoners' Aid Society, Carlisle; Industrial School at Cockermouth; and the Soup Kitchen, Whitehaven.

CORONER FOR THE WESTERN DISTRICT.—The Public Control Committee of the London County Council have recommended that Dr. C. Luxmoore Drew should be appointed Dr. Diplock's successor as coroner to the Western District. A number of members protested against the action of the committee in failing to submit several names for the consideration of the Council, and an amendment was proposed to the effect that the report should be referred back to the committee, in order that three names might be submitted to the Council. It was finally decided to vote upon eight selected candidates who had appeared before and been examined by the committee, the result being that Dr. Drew was elected by a large majority.

Medical News.

UNIVERSITY OF DURHAM.—The following candidates at the Second Examination for the degree of Bachelor in Medicine at the College of Medicine, Newcastle-on-Tyne, have satisfied the Examiners:—

Second Class Honours.—**Lionel Claude Everard Calthrop, M.R.C.S., L.R.C.P., London Hospital.**

Pass list.—**Wilfred Ernest Alderson, Robinson Brown, Wm. Andrew l'Anson Charlton, Percival Davidson, Gilbert Gocher, William Thomas Harkness, Christopher Julius Jeaffreson, Tom Sanderson, George William Scott, William Smith, and Percy Hugh Wardell-Johnson, College of Medicine, Newcastle-on-Tyne; Leonard Harman, St. Thomas's Hospital; Alfred Grosvenor Hinks, M.R.C.S., L.R.C.P., and Edwd. John Steegmann, M.R.C.S., M.R.C.P., L.S.A., St. Mary's Hospital; William Ernest Jones, M.R.C.S., L.R.C.P., and Bertie James Mayne, Middlesex Hospital; Frank Laughton-Smith, Ernest Percy Satchell, and George Hedley Tomlinson, Mason College, Birmingham; Walter Frederic Miller and Fredk. William Rowland, Guy's Hospital; John Ralph Prior, King's College Hospital; Ferdinand Clarence Smith, M.R.C.S., M.R.C.P., L.S.A., University College, London.**

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed in the respective subjects:—

Surgery.—**J. N. Dobie, Cambridge and St. Mary's Hospital; G. Grace, Bristol; G. B. Hillman, Yorkshire College, Leeds; S. L. Martin, London Hospital; G. H. Jones, Middlesex Hospital; R. A. Smith, Edinburgh.**

Medicine, Forensic Medicine and Midwifery.—**E. Henry, St. Bartholomew's Hospital; M. Richards, London Hospital; J. M. Swanson, Charing cross Hospital; P. M. Thomas, Cleveland, U.S.A.; A. E. Wilson, St. Mary's Hospital.**

Medicine and Forensic Medicine.—**W. Fowler, Durham; G. L. Godwin, Edinburgh.**

Medicine and Midwifery.—**W. E. Barker, Owens College, Manchester; F. B. Lewis, London Hospital; E. D. Madge, Middlesex Hospital; J. H. Roberts, Guy's Hospital.**

Medicine.—**D. Berne, Royal Free Hospital.**

Forensic Medicine and Midwifery.—**F. V. Denne, Westminster Hospital; E. J. T. Jones, St. Thomas's Hospital; A. J. Russell, London Hospital.**

Forensic Medicine.—**B. S. Foulds, Charing-cross Hospital; S. L. Martin, London Hospital; T. E. Pallett, Westminster Hospital.**

Midwifery.—**E. C. Adams, St. Bartholomew's Hospital.**

To Messrs. Dobie, Fowler, Grace, Hillman, Lewis, Martin, Pallett, Smith, Thomas and Wilson was granted the diploma of the Society entitling them to practise Medicine, Surgery and Midwifery.

LITERARY INTELLIGENCE.—Dr. von Schroeder has retired from the joint editorship of the *St. Petersburger Medicinische Wochenschrift*, his place being taken by Dr. Rudolf Wanach of St. Petersburg.—A new medical journal has appeared in New York under the editorship of Dr. Aulde. It is entitled *The American Therapeutist*, and is to be devoted exclusively to therapeutics.

A PAPER on the Urgent Need for amended Legislation for Inebriates will be read by Mr. W. H. Williams, M.R.C.P., at the quarterly general meeting of the Society for the Study and Cure of Inebriety, at 11, Chandos-street, W., on Thursday afternoon, Oct. 4th, at 4 o'clock, when the chair will be taken by the President, Dr. Norman Kerr, F.L.S.

FIRE AT THE JESSOP HOSPITAL, LEAVYGREAVE.—A fire, which was fortunately discovered before very serious consequences resulted, broke out on the 22nd ult. at the above hospital. The disaster was probably due to the ignition of the floor of one of the rooms which it was desired to fumigate by means of a pan of sulphur.

WATER-SUPPLY OF HASTINGS.—The Hastings Borough Corporation are engaged in carrying out experiments at Brede, with a view of getting an additional water-supply to the town. When the wells are sunk there will be a daily yield of 3,000,000 gallons. The cost of the undertaking is roughly estimated at £70,000. The water from the springs is reported to be exceptionally pure.

PROPOSED ISOLATION HOSPITAL, BANSTEAD DOWNS. Last week a meeting of the Joint Committees of the Sutton and Carshalton Local Boards and the Epsom Rural Sanitary Authority was held to consider the suggested site on Banstead Downs for the erection of an isolation hospital. It was resolved that the proposed site, on the terms offered, be accepted. It was also resolved that application be made to the Central Board for power to constitute the three local authorities into a joint board for the management of the hospital.

EXETER CENTRE ST. JOHN AMBULANCE ASSOCIATION, GREAT WESTERN RAILWAY BRANCH.—On Sept. 26th the Duke of Edinburgh presented the students who had been successful in the Great Western Railway Branch of the Exeter Centre of the St. John Ambulance Association examination with certificates.

THE NEW WESTERN HOSPITAL.—At a meeting of the London County Council on Sept. 26th it was agreed, on the recommendation of the Finance Committee, to lend to the Metropolitan Asylums Board the sum of £46,825 for the purpose of erecting additional buildings at the Western Hospital and for the reconstruction of the Western Ambulance Station.

NEW DISINFECTING CHAMBER FOR ISLINGTON.—On the initiative of Mr. Alfred Harris, medical officer of health, it has been decided by the public oealth committee to recommend to the vestry the desirability of erecting a disinfecting chamber on a piece of ground within the bounds of the parish. The estimated cost of building and apparatus is £1500.

FOOTBALL CASUALTIES.—Whilst playing a game on the 17th ult. at Dixon's-green, Dudley, a youth badly fractured his left arm. On Saturday, during a match between Laurieston and King's-park, Falkirk, the King's-park goal-keeper, through colliding in the midst of a scrimmage with one of the opposing forwards, fractured his left leg just above the ankle.

DISINFECTION OF PARCELS.—An arrangement has been come to between the General Post Office authorities and the Clerkenwell Vestry whereby the latter undertake the disinfection of Post Office parcels at a charge of six shillings each time the apparatus is used, irrespective of the number of parcels, and this charge to include the services of two men fetching the parcels in the disinfecting truck and returning them when disinfected.

THE number of patients remaining in the several fever hospitals of the Metropolitan Asylums Board at midnight in Sept. 27th was as follows:—Eastern Hospital, 415 scarlet fever, 64 diphtheria and 37 enteric fever; North-Western Hospital, 411 scarlet fever, 98 diphtheria and 21 enteric fever; Western Hospital, 302 scarlet fever, 45 diphtheria, 3 typhus fever and 12 enteric fever; South-Western, 307 scarlet fever, 61 diphtheria and 25 enteric fever; South-Eastern, 404 scarlet fever, 20 diphtheria and 9 enteric fever; Northern Hospital, 824 scarlet fever and 18 diphtheria; and at the Gore Farm Hospital there were 724 cases of scarlet fever. The hospital ship *Atlas* had 2 cases of small-pox.

PRESENTATIONS.—Mr. A. W. Douglas, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., of Brushgrove, Clarence River, New South Wales, was presented on July 5th last, on the occasion of his leaving the district, with an illuminated address and a gold Waltham watch, suitably inscribed.—Dr. Arthur W. Kempe, of Exeter, has been presented by the Exeter Fire Brigade with a silver salver, in appreciation of his services as their medical officer.—Mr. A. E. Wynne, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., of Dublin, has been the recipient of a handsome illuminated address and a purse of sovereigns, from the medical and surgical staff of the Mercer's Hospital in that city, as a token of respect and esteem.

LIST OF PRIZES AT THE LONDON MEDICAL SCHOOLS.

THE following is a list of the prizes &c. awarded for the sessions 1891-92.

ST. BARTHOLOMEW'S HOSPITAL.—Lawrence Scholarship and Gold Medal: E. W. G. Masterman. Brackenbury Medical Scholarship: E. H. E. Stack. Brackenbury Surgical Scholarship: A. H. Buck and A. N. Weir, equal. Senior Scholarship in Anatomy, Physiology and Chemistry: E. J. Toye; *prox. acc.*, F. Fraser. Open Scholarships in Science, Chemistry and Physics: M. Coleman and T. Horder, equal. Biology and Physiology: H. T. Gillett. Junior: V. H. Blackman. Preliminary Scientific Exhibition: J. Hussey. Jeaffreson Exhibition: F. H. Nimmo. Kirkes Scholarship and Gold Medal: H. L. Brooksbank. Bentley Prize (Surgical): H. J. Paterson. Hichens Prize: H. J. Paterson. Wix Prize: No award. Harvey Prize: M. G. Pearson; 2, J. Currie; 3, G. A. C. Calvert; 4, G. H. Sowry; 5, A. W. B. Cochrane; 6, E. J. Toye; 7, F. A. Smith; 8, S. P. Kesteven. Sir George Burrows' Prize. Skynner Prize: A. S. Blackwell and W. B. Jones, equal. Practical Anatomy (Junior)—Treasurer's Prize: S. P. Huggins; 2, G. E. Dodson; 3, S. P. W. Brigstocke and W. B. Stowe; 5, J. P. Maxwell; 6, E. J. Simmonds; 7, W. R. Miller; 8, L. F. Marks; 9, F. H. Nunn. Practical Anatomy (Senior)—Foster Prize: J. H. Meacher; 2, T. P. Legg; 3, H. T. Gillett and A. Woodward; 5, G. H. Sowry; 6, J. Currie; 7, G. A. C. Calvert; 8, M. G. Pearson; 9, A. W. B. Cochrane. Shuter Scholarship: W. M. Borcherds. Junior Scholarships: J. T. Horder; 2, J. Hussey. Junior Scholarship in Chemistry (1891): E. J. Toye; 2, J. Currie and E. G. B. Drury.

ST. GEORGE'S HOSPITAL.—£125 entrance scholarship: H. M. Cooper. £50 entrance scholarship: J. M. Manning. £65 entrance scholarships: F. C. Bottomley, C. Kempson. Pollock Prize in Physiology: C. R. Watson. The Henry Charles Johnson Prize in Anatomy: Reginald Norman. The William Brown £100 Exhibition: R. G. Turner. The William Brown £40 Exhibition: C. C. S. Barry. Sir Charles Clarke's: A. E. Weston. The Treasurer's: G. H. Gouldsmith. The Thompson Medal: G. Carré. The Brackenbury Prize in Surgery: A. L. Tatham. Third Year's proficiency: G. R. Baldwin. Second Year's proficiency: L. G. Davies. First year's proficiency: C. R. Keyser.

GUY'S HOSPITAL.—The Treasurer's Gold Medal for Clinical Medicine: Arthur Mantell Daldy, Romford; Alfred Theodore Rake, Fordingbridge, *proxime accessit*. The Treasurer's Gold Medal for Clinical Surgery: Alfred Theodore Rake, Fordingbridge. Gurney Hoare Prize for Clinical Study? Herbert Edward Durham, London. Beaney Prize for Pathology: Arthur Mantell Daldy, Romford. Golding-Bird Prize and Gold Medal for Diagnosis: Charles Satchell Pantin, Blackheath. Sands Cox Scholarship for Physiology: Charles John Harnett, Guildford; Alfred Salter, Blackheath, *proxime accessit*. Michael Harris Prize for Anatomy: Henry Alford Moffat, Grahamstown, Cape Colony. The Arthur Durham Prizes for Dissection: First Year's Students—Norman Howard Pike, Streatham-common, prize, £5; Richard Hamilton Ashwin, Spalding, certificate: Arthur George Butler, Beckenham, Kent, certificate. Second Year's Students—Richard Foster Clark, Plymouth, prize, £15; James Henry Horton, Charlton, certificate; Henry Alford Moffat, Grahamstown, Cape Colony, certificate. Prizes for Fourth Year's Students: Francis Jordan Coleman, Hunmanby, Yorks; Charles Satchell Pantin, Blackheath, and George Frederic Still, Tollington-park, equal, £12 each; Arthur John Sharp, Bromley, Kent, certificate; William John Johnson, Shefford, certificate; David Morgan Beddoe, Merthyr Tydfil, certificate. Prizes for Third Year's Students: John Alexander Howard, Canonbury, first prize, £25; Hugh Milton Stewart, Beckenham, Kent, second prize, £10. Prizes for Second Year's Students, 1891: Guy Eugene Manning, Hammersmith, first prize, £25; Leopoid Ernest Valentine Every Clayton, Nelson, Lancashire, second prize, £10; John Alexander Howard, Canonbury, certificate; Arthur Henry Leete, Wellingborough, certificate. Prizes for First Year's Students, 1891: Francis James Steward, Old Charlton, first prize, £50; Charles John Harnett, Guildford, and Alfred Salter, Blackheath, equal, £12 10s. each; Harold Nolan, London, certificate. Prizes for First Year's Dental Students: John Brodribb Parfitt, Reading, prize, £10; Charles Henry Oram, South Molton, certificate; George Sidney Frederick Manton, London, certificate. Prizes for Second Year's Dental Students: Richard Ernest Woodcock, Pontefract, Yorks, prize, £15; Samuel Ralph Apthorpe, Bromley, Kent, certificate; Archibald Rutlidge Henry, Hastings, certificate. Prizes for Practical Dentistry: Stephen Keele, London, prize, £10; Archibald Rutlidge Henry, Hastings, certificate; Harold Arthur Turner, Eastbourne, certificate. Open Scholarships in Arts: Gerald Burton-Brown, Cambridge, 100 guineas; Norman Lavers, Tasmania, 50 guineas. Open Scholarships in Science: Arthur George Butler, Beckenham, Kent, Peter Henry Haylett, Kimberley, Cape Colony, and Hugh Milton Stewart, Beckenham, Kent, equal, £61 5s. each.

LONDON HOSPITAL.—Entrance Science Scholarships, instituted 1875, given for proficiency in the subjects required for the preliminary scientific M.B. examination at the University of London: £75 scholarship, H. Innes; £50 scholarship, C. E. Davenport. Buxton Scholarships, given for proficiency in the subjects required for the preliminary examinations: £30 scholarship, G. H. Warren; £20 scholarship, J. G. Wallis. Clinical Medicine: £20 scholarship, given jointly by the House Committee and the Medical Council, A. Strange; honorary certificate, F. J. Woollacott. Clinical Surgery: £20 scholarship, given jointly by the House Committee and the Medical Council, A. Strange; honorary certificates, J. W. Hull and J. E. Gilbert Rogers. Clinical Obstetrics: £20 scholarship, given jointly by the House Committee and the Medical Council, A. Strange; honorary certificates, J. W. W. Stanton and H. L. Barnard. Duckworth Nelson Prize (biennial): Awarded last year. Letheby Prize: £30 prize for proficiency in chemistry, J. C. Spillane and D. P. Harris; honorary certificate, R. Bebb. Hutchinson Prize (triennial): Awarded 1890, W. G. Noble. Anatomy, Physiology and Chemistry: £25 scholarship, given by the Medical Council, W. B. Butler. Anatomy and Physiology: £20 scholarship, given by the Medical Council, Elgar Down; honorary certificate, H. Innes. Dressers' Prizes, for Zeal, Efficiency, and Knowledge of Minor Surgery, given by the House Committee: £15 prizes, J. D. Galloway and A. Good'ng. Practical Anatomy Prizes: £6 prize, H. E. B. Porter; £4 prize, M. Cameron; £3 prize, J. V. Worthington; £3 prize, J. C. Spillane; £3 prize, A. E. Lovitt; £2 prize, A. Gooding; £2 prize, H. M Rigby.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—Summer Session, 1891.—Materia Medica: Examiner, Dr. Sainsbury—Prize, Miss Moffett; certificates, Miss S. Hughes and Miss Despard. Practical Chemistry: Examiner, C. W. Heaton, F.C.S.—Prize, Miss Yardley; certificates, Miss Thornett and Miss Hull. Practical Organic Chemistry: Examiner, C. W. Heaton, F.C.S.—Prize, Miss E. Knight; certificates, Miss Bennett, Miss de Steiger, Miss Appel, and Miss Flint. Histology and Practical Physiology: Examiner, Professor Halliburton—Prize, Miss M. Benson; certificates, Miss Appel, Miss M. Webb, Miss Turle Evans and Miss Dodson. Forensic Medicine: Examiners, Dr. Dupré and Mrs. Dowson, L.R.C.P. and S.I.—Prize, Miss Hatch; certificates, Mrs. Rye, Miss Murdoch and Miss Bale. Winter Session, 1891-92.—Physiology: Examiner, Professor Halliburton, F.R.S.—Prize, Miss Hayward; certificates, Miss Appel, Miss Stoney, Miss Thornett, Miss Patch, Miss Lewin, Miss Flint and Miss Vaughan. Chemistry: Examiner, C. W. Heaton, F.C.S.—Prize, Miss Yardley; certificates, Miss Colebrook and Miss Rawlinson. Organic Chemistry: Examiner, C. W. Heaton, F.C.S.—Prize, Miss Sweatman; certificates, Miss Stoney and Miss Caine. Anatomy, first year: Examiner, Stanley Boyd, F.R.C.S.—Prize, Miss Rawlinson; certificates, Miss Stoney, Miss Colebrook, Miss Hull, Miss Long, Miss Thorne, Miss Despard, Miss Sutherland, Miss Vaughan and Miss Adams. Anatomy, second year: Examiner, Stanley Boyd, F.R.C.S.—Prize, Miss Hodgins; certificates,

Miss Leney, Miss Appel, Miss Holt and Miss de Steiger. Medicine: Examiners, Mrs. Garrett Anderson, M.D., and Dr. H. Donkin—Prize, Mrs. Rye; certificates, Miss Moffett, Miss Bale and Miss Murdoch. Midwifery: Examiner, Dr. Ford Anderson—Prize, Miss Hatch; certificates, Mrs. Rye, Miss Boyle, Miss Bale, and Miss Murdoch. Gynecology: Examiner, Mrs. Scharlieb, M.D.—Prize, Miss Murdoch; certificates, Miss Jones, Miss Bale, Miss Boyle, Miss Moffett, Miss E. Knight, Miss Gray, Mrs. Rye, Miss Westlake, Miss Harding, Miss Nicholas, Miss Corthorn, Miss Pellatt, Miss Berne, Miss Helen Greene, Miss Armitage, Miss Hatch and Miss Mitchenson. Operative Midwifery: Examiner, Mrs. Stanley Boyd, M.D.—Prize of five guineas given by Mr. Wood. Miss Hatch; certificates, Mrs. Rye and Miss Berne. No certificate is given under 66 per cent. of marks. Entrance scholarship for October, 1891, given by the executive council, value £30, awarded to Miss Latham; examiner, G. S. Carr, M.A. Fanny Butler scholarship, value £20 a year for four years, Miss Von Himpe; Helen Prideaux prize, £50, Miss M. Sturge, M.B. Lond.

ST. MARY'S HOSPITAL.—Entrance scholarship in Natural Science of 100 guineas, 1891, F. A. St. John; entrance scholarships in Natural Science of 50 guineas, B. Lewitt, R. Sugden and W. B. Stevenson; University scholarships of 50 guineas, W. J. Harris and J. A. Wright; Epsom scholarship of value of £120, no award. Summer Session, 1891—Second year—Midwifery: A. E. Wilson, prize; A. Stanley and G. R'd-dick, certificates of honour. Medical Jurisprudence: J. E. Beggs, B.A., and A. E. Wilson, prizes; W. W. Linington and R. Corfe, certificates of honour. First Year—Materia Medica: J. E. P. Davies, prize; W. Ashdowne, A. W. Sanders and J. C. Smellie, certificates of honour. Botany: B. Lewitt and F. A St. John, prizes; C. D. Lindsey and W. B. Stevenson, certificates of honour. Practical Chemistry: W. Ashdowne, prize; J. N. MacDonald, H. G. Jones and F. Keogh, certificates of honour. Chemistry: E. Hansom, prize; C. S. Murray and W. Ashdowne, certificates of honour. Winter Session, 1891-92—Third year—Medicine: C. T. Parsons, prize; C. M. Rhodes, W. Broadbent, B.A., and J. L. Morton, certificates of honour. Surgery: J. L. Morton, prize; C. T. Parsons and C. M. Rhodes, certificates of honour. Practical Surgery: J. L. Morton, prize; J. E. Beggs, B.A., certificate of honour. Pathology: J. E. Beggs, B.A., prize; C. T. Parsons and A. F. Bill, certificates of honour. Third and Fourth Years—Prizes in Ophthalmology of £10 10s.: E. L. P. Payne and C. M. Rhodes. Prize in Dermatology of £5 5s.: J. E. Beggs, B.A. Clinical Surgery: J. E. Beggs, B.A., prize (1891-92). Clinical Medicine: E. A. Nathan, prize (1891-92). Second Year.—Anatomy: A. W. Sanders, prize; J. E. P. Davies, E. Hanson and J. C. Smellie, certificates of honour. Physiology: A. W. Sanders, prize; J. E. P. Davies and R. W. Dodgson, certificates of honour. First Year.—Anatomy: W. Ashdowne and M. F. Squire, prizes; W. B. Stevensoh and W. D. Wiggins, certificates of honour. Physiology: F. A. St. John, prize; P. S. Lelean and W. Ashdowne, certificates of honour. Special Prizes, 1891.—Students of First Year—for general proficiency in Anatomy, Physiology, Materia Medica and Chemistry: A. W. Sanders. Students of Second Year—for general proficiency in Anatomy, Physiology, Midwifery and Medical Jurisprudence: A. E. Wilson. Students of Third Year—for general proficiency in Medicine, Surgery, Pathology and Operative Surgery, no competitors. Prosectors: A. W. Sanders and J. C. Smellie.

MIDDLESEX HOSPITAL.—Broderip Scholarships, for the best Examination at the Bedside and in the Post-mortem Room: First, W. F. Lucas; second, H. B. Long. Governors' Prize: A Baldwin. Exhibition in Anatomy: First year, C. W. Alford. Medicine: F. E. Rock. Surgery: H. C. Thomson. Practical Medicine and Therapeutics: H. C. Thomson. Practical Surgery: W. F. Lucas. Practical Midwifery: B. W. Nankivell. Anatomy: A. P. Coker. Physiology: E. J. Dobbin. Chemistry: R. H. S. Preston. Hetley Prize: A. Baldwin. Lyell Medal: W. F. Lucas. Dissections: E. J. Dobbin. Pathological Anatomy: R. A. Young. Midwifery: W. T. Pugh and M. W. W. Curtis, equal. Forensic Medicine: C. H. Watson. Materia Medica: A. E. Walter. Practical Chemistry: T. T. Day. Practical Physiology: N. B. Harman. Entrance Scholarships: First, E. du P. Aubin; second, Charles Roberts. Certificates of Honour, in order of merit: Medicine—W. P. Lucas, A. Baldwin, H. C. Thomson. Practical Surgery—T. W. Lockett, A. Baldwin, F. E. Rock, C. H. Watson. Anatomy—E. J. Dobbin, M. B. Pinchard, N. E. Thomas, C. H. J. Robinson. Physiology—T. H. Wells, A. P. Coker, M. A. Raper. Practical Medicine—A. E. Shepherd and A Baldwin, equal, F. E. Rock. Surgery—A. Baldwin, F. E. Rock. Pathological Anatomy—F. E. Rock, W. M'C. Wanklyn, W. T. Pugh, A. P. Coker, A. Cortes. Midwifery—F. E. Rock, G. A. Jones, R. A. Young. Practical Midwifery—T. Carwardine, A. E. Shepherd, N. J. Smith, T. A. Beddy. Forensic Medicine—H. C. Thomson, A. Baldwin, F. E. Rock. Materia Medica—C. W. Alford, B. J. Mayne, N. B. Harman. Practical Chemistry—T. Thomas, W. H. Wykes, D. J. Jones; E. W. Hopkins, T. H. Jones and J. W. Myler, equal; C. C. Smith and E. Z. Ward, equal. Practical Physiology—F. Dodd, E. K. Herring. Chemistry—C. Roberts.

ST. THOMAS'S HOSPITAL.—Entrance Science Scholarships: A. H. Stewart, Regent's Park, scholarship, 125 guineas, and certificate of honour; F. H. Gervis, Haverstock-hill, scholarship, £60, and certificate of honour. First Year's Student's: J. C. Harcourt, South Woodford, the William Tite Scholarship, £27 10s., and certificate of honour; B. Dyball, Brixton, college prize, £20, and certificate of honour; A. H. Stewart, Regent's Park, college prize, £10, and certificate of honour; F. R. Thornton, Leicester; M. Takayasu, Japan; A. J. Martineau, Lupus street; F. H. Gervis, Haverstock-hill; H. N. Goode, Kensington—certificates of honour. Second Year's Students: G. G. Genge, Croydon, the Peacock Scholarship, £38 10s., and certificate of honour; W. E. F. Tinley, Whitby, college prize, £20, and certificate of honour; E. L. Perry, St. George's-square, college prize, £10, and certificate of honour; A. L. Home, Hampstead; W. H. J. Paterson, Shepherd's-bush, and E. O. Thurston, Panton-street, equal; W. D. Frazer, Penarth—certificates of honour. Third Year's Students: A. E. Russell, Greenwich, college prize, £20, and certificate of honour; S. W. R. Richardson, Whitby, second tenure of the Musgrove Scholarship, and certificate of honour. Practical Medicine: A. R. O. Milton, Brighton, the Mead Medal, founded by Mr. and Mrs. Newman Smith. Surgery and Surgical Anatomy: W. G. Sutcliffe, Clapham, the Cheselden Medal, founded by the late Mr. George Vaughan; E. Smith, Wandsworth Common; W. Redpath, Norwood-road, certificates of honour. Solly Medal and Prize: W. B. Winston, Oxford-gardens, medal and prize, £30. For General Proficiency and Good Conduct: E. Smith, Wandsworth Common, the Treasurer's Gold Medal. Certificates of Honour: Anatomical Assistants—S. W. F. Richardson, A. E. Russell. Prosectors: H. C. Crouch, G. G. Genge, A. L. Home, L. N. Pentreath, E. L. Perry, E. O. Thurston. Assistants in Physiological Laboratory: W. E. Dixon, H. M. Harrison, J. S. Hudson, W. H. J. Paterson. Pathological Assistants: J. C. Durston, E. M. Hainworth, W. G. Sutcliffe. House Physicians: C. R. Box, T. H. Kellock, C. Latter, J. J. Perkins, C. Wyman; non-resident, G. R. F. Stilwell, D. F. Shearer, W. P. Purvis. House Surgeons: L. Cobbett, T. H. Haydon, J. R. Harper, C. Wyman, T. H. Heilock, C. R. Box, W. F. E. Milton. T. A. M. Forde. Assistant House Surgeons: L. Cobbett, C. Wyman, W. F. E. Milton, T. A. M. Forde, T. H. Kellock, C. R. Box, H. Burden, P. J. Atkey. Obstetric House Physicians: Senior—J. R. Harper, W. G. G. Stokes, W. F. Umney, A. Banks; Junior—W. L. Wainwright, T. H. Haydon. Ophthalmic House Surgeons: C. H. Usher, S. G. Toller. Clinical Assistants in the Special Departments: Skin, F. W. Beville, L. G. Scudamore; throat, P. J. Atkey, A. Dalzell, T. A. M. Forde; ear, E. H. G. Morris, J. H. Fisher, C. S. Wallace.

UNIVERSITY COLLEGE.—Winter Session.—Entrance Exhibitions: £100, W. B. L. Trotter of London; £60, C. B. Goring of London; £40 each, equal, J. C. H. Leicester of Dulwich and A. J. Rodocanachi of London. Atchison Scholarship (£60 per annum for two years): F. V. Bunch of London. Atkinson Morley Scholarship (£45 per annum for three years): Douglas Drew of London. Bruce Medal: F. B. Bunch of London. Physiology.—Senior Class: gold medal, J. H. Cook of London; silver medal, P. J. Edmunds of London; certificates, 3°, equal, F. W. Chandler of Derby, A. Dimsey of London, T. C. H. Stevenson of Strabane; 6°, G. B. Hunt of London. Second Class: F. J. Coutts of London, F. G. Crookshank of London, S. E. Shoppee of London, C. C. Weeks of Gibraltar. Third Class: C. Banting of London, J. N. Brown of London, A. Hunnard of London, T. A. Starkey of Northwich, A. Young of Sheffield. Junior Class: silver medal, J. Shardlow of Clay Cross; certificates, 2°, H. B. Shaw of Sydney; 3°, D. N. Nabarro of London; 4°, J. C. H. Leicester of Dulwich; 5°, W. G. Savage of Blackheath; 6°, S. H. Belfrage of Putney; 7°, P. K. Byrne of Drogheda. Second Class: J. N. Bahadhurji of Bombay, J. A. Belcher of Gnosall, T. R. H. Bucknall of Kidderminster, F. B. Carter of Gravesend, C. C. Clarkson of Leicester, A. M. Connell of Barbados, C. B. Goring of London, L. S. Hughes of New Zealand, A. D., Ketchen of Middlesbrough, J. H. Murray of Honour Oak, J. W. F. Rait of Forest-hill, A. J. Rodocanachi of London, T. O'N. Roe of London, J. D. Russell of Greenwich, E. Thomas of Cardigan, W. B. L. Trotter of London. Third Class: H. J. Price of New Malden, A. R. Todd of Jamaica. Pathology.—Practical Course: Tuke Silver Medal, J. L. Bunch of London; Tuke Bronze Medal, 1. Costa of Jamaica; certificate, 3°, F. T. Travers of London. Anatomy.—Senior Class: Gold medal, A. Dimsey of London; first silver, T. H. C. Stevenson of Strabane; second silver, G. B. Hunt of London. Second Class: F. J. Coutts of London, A. Hunnard of London, T. A. Starkey of Northwich. Third Class: C. Banting of London, J. C. Hibbert of Watford, A. W. Jenkins of Llandyssul, W. R. Nattle of Callington, E. Stork of Ceylon, S. E. Shoppee of London. Junior Class: Silver medal, J. D. Russell of Greenwich; certificates, 2°, C. C. Clarkson of Leicester; 3°, J. A. Belcher of Gnosall; 4°, H. B. Shaw of Sydney; 5°, A. D. Ketchen of Middlesbrough; 6°, H. J. Price of New Malden. Second Class: J. N. Bahadhurji of Bombay; C. B. Goring of London; D. N. Naborro of London; A. J. Rodocanachi of London; E. Thomas of Cardigan. Third Class: P. K. Byrne of Drogheda, H. A. Günther of Hampton Wick, J. C. H. Leicester of Dulwich, J. W. F. Rait of Forest Hill. Medicine.—Gold medal, F. V. Bunch of London; first silver, M. Randall of Beaminster; second silver, J. Jones of Clydach; certificates, 4°, C. G. Spencer of New Zealand; 5°, A. D. Heath of Exeter; 6°, G. A. Stephens of Cardigan. Second Class: A. Y. Fullerton of Sydney; D. Keele of London. Surgery.—Gold medal, F. V. Bunch of London; first silver, M. Randall of Beaminster; second silver, C. G. Spencer of New Zealand; certificates, 4°, H. A. Ballance of London; 5°, E. W. Selby of Lewisham. Second Class: A. D. Heath of Exeter, G. A. Stephens of Cardigan. Third Class: A. Y. Fullerton of Sydney, W. W. Hodgins of London, D. Keele of London. Chemistry.—Prize, A. R. Tod of Jamaica; certificate, 2°, L. S. Hughes of New Zealand. Practical Surgery: Erichsen Prize, David Keele of London; certificates, 2°, C. G. Spencer of New Zealand; 3°, H. A. Ballance of London. Second class; C. J. Harrison of Devonport, W. W. Hodgins of London, G. A. Stephens of Cardigan, F. W. Wesley of London, E. S. Worrall of Manchester. Clinical Medicine.—Senior Class: Fellowes Gold Medal, F. V. Bunch of London; Fellowes Silver Medal, F. W. Wesley of London; certificates, 3°, H. A. Ballance of London; 4°, J. Jones of Clydach, 5°, W. T. Lister of Leytonstone; 6°, C. G. Spencer of New Zealand; 7°, M. Randall of Beaminster; 8°, C. J. Harrison of Devonport. Second Class: R. Evans of Dinas Mawddwy, A. D. Heath of Exeter, D. Keele of London, A. G. Levy of London, J. E. Ramsay of Sydney, G. A. Stephens of Cardigan, T. Streatfeild of London. Third Class: A. Y. Fullerton of Sydney, J. L. Sawers of Blackheath. Junior Class: J. R. Bradford, M.D., D.Sc.; Fellowes Silver Medal, R. W. Lake of Sydney; certificates, 2°, T. B. Stedman of Leighton Buzzard; 3°, E. J. Smyth of New Barnet; 4°, J. L. Bunch of London. Second Class: M. Ashley of Modbury, P. Best of St. Ives, P. S. Eves of London, T. R. Llewellyn of Llantwitvardre. Third Class: W. Drake of Canterbury, E. F. Harwood of Lisbon, J. M. Stewart of London, A. M. Watts of Acton. Clinical Surgery.—Liston Gold Medal: A. B. Harris of Oxford. Clinical Dental Surgery.—Silver medal, H. A. Ballance of London; certificates, 2°, F. V. Bunch of London, 3°, G. A. Stephens of Cardigan and F. W. Wesley of London, equal; Second Class, H. R. S. Clarke of Malvern. Summer Session—Histology and Practical Histology.—Gold medal, P. K. Byrne of Drogheda; silver, J. A. Belcher of Gnosall and C. B. Goring of London equal; certificates, 4°, J. D. Russell of Greenwich, 5°, J. C. H. Leicester of Dulwich, D. N. Nabarro of London and A. J. Rodocanachi of London equal, 8°, H. B. Shaw of Sydney. Second Class: H. Clifford of London. Third Class: H. R. Emms of London. Pathology.—Filliter Exhibition of £30: J. Le M. Bunch of London; silver medal, Isaac Costa of Jamaica. Chemistry (Chemistry and Chemical Physics).—Prize, R. H. Hyde of London; certificates, 2°, L. S. Hughes of New Zealand and L. E. Creasy of Ealing. Second Class, H. Chatterton of London. Third Class: C. M. Atkinson of Ashford, P. D. Barker of Kimpton and C. G. Moffitt of Clapham. Practical Chemistry.—Prize, R. H. Hyde of London; certificates—2°, L. S. Hughes of New Zealand; 3°, C. G. Moffitt of Clapham; 4°, P. D. Barker of Kimpton; 5°, L. E. Creasy of Ealing, 6°, H. Chatterton of London and C. M. Atkinson of Ashford, equal. Third Class: H. H. Fawcett of London. Senior Practical Class: prize,

J. S. Bolton of Whitby; certificates, 2°, A. Dimsey of London; 3°, J. N. Brown of London. Second Class: F. J. Coutts of London. Organic Chemistry.—Prize J. S. Bolton of Whitby; certificate, 2°, F. J. Coutts of London. Second Class: T. A. C. Stevenson of Strabane. Third Class: F. W. Chandler of Derby and A. Dimsey of London. Junior Organic Chemistry—Certificate, 1°, J. Shardlow of Clay Cross. Third Class: C. B. Goring of London. Materia Medica and Therapeutics—Gold medal, A. Dimsey of London; silver medal, T. A. Starkey of Northwich; certificates, 3°, J. S. Bolton of Whitby; 4°, J. Pole Kitson of Southsea and H. J. Price of New Malden, equal. Second Class: J. N. Brown of London and C. C. Clarkson of Leicester. Midwifery—Senior class: gold medal, A Gaskell of Dartmouth; silver medal, P. H. Stirk of Wolverhampton. Junior class, silver medal, A. W. Kirkpatrick-Picard of London; certificates, 2°, Palemon Best of St. Ives; 3°, T. B. Stedman of Leighton Buzzard; 4°, A. J. Lang of Southport; 5°, H. J. Price of New Malden; 6°, G. P. James of Llanelly. Medical Jurisprudence.—Gold medal, C. M. Spain of London. Hygiene and Public Health.—Silver medal, J. Wilkie of London. Second Class: J. Rannie of Aberdeen. Clinical Medicine—Junior Class: Fellowes Silver Medal, W. D. Jones of Chipping Sudbury; certificate, 2°, A. P. Nuttall of Bury. Second Class: A. W. Kirkpatrick-Picard of London. Third Class: W. E. Kirby of London. (*Obtained the number of marks qualifying for a prize.*)

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ARCHER, E. J., M.B., C.M. Dub., has been appointed, *pro. tem.*, Medical Officer for the Second Sanitary District of the Southampton Incorporation, vice Archer, deceased.

BAILEY, T. C., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer for the Crewe Southern Sanitary District of the Nantwich Union.

BOSTOCK, J., M.R.C.S., has been appointed Medical Officer for the Wymeswold Sanitary District of the Loughborough Union.

BRATTON, J. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for Ewell, of the Epsom Union, vice Barnes, deceased.

CARNELLEY, M., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Gotham Sanitary District of the Basford Union.

COWAN, RICHARD HAMILTON, M.R.C.S., L.S.A., has been appointed Honorary Medical Officer to the Royal Albert Edward Infirmary, Wigan, vice R. F. Woodcock, deceased.

DALISON, BERNARD E., has been appointed Medical Officer and Public Vaccinator for the Puddletown District of the Dorchester Union.

DIGBY, C. A., M.D., B.Ch., D.S.M., L.M.R.C.P. Irel., has been appointed Medical Officer for the Ticehurst Sanitary District of the Ticehurst Union.

FORRESTER, R. A. P., M.B., C.M. Edin., has been appointed Health Officer for Wycheproof, Victoria, South Australia.

FRANCIS, ERNEST EDWARD, M.R.C.S., L.S.A., has been appointed Surgeon to the Assam-Bengal Railway.

HAMILTON, R. H., L.R.C.P., L.M., L.R.C.S. Irel., has been appointed a Public Vaccinator for the District of Mount Pleasant, South Australia.

HOOPER, MARSHALL, L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer for the Codnor Park Sanitary District of the Basford Union.

HOUSLEY, J., M.D. St. And., M.R.C.S., has been reappointed Medical Officer of Health for the East Retford Rural Sanitary District.

JACKSON, R., M.B., C.M. Edin., has been appointed Deputy Medical Officer for the Township of Sutton, St. Helen's, Lancashire.

JEFFREYS, JAS. G., L.S.A. Eng., has been appointed a Public Vaccinator for the District of Naseby, New Zealand.

KEMPE, C. M., M.R.C.S., has been reappointed Medical Officer for the Port of Shoreham.

MULLALBY, WM. T., M.D., M.Ch., L.R.C.P. Irel., has been appointed Health Officer for the Shire of Ballarat, Victoria, Australia.

PHILLIPS, GEO. G. O., L.R.C.P. Lond., M.R.C.S., has been appointed a Public Vaccinator, and also Health Officer for the Shire of Heidelberg, Victoria, Australia.

PURVIS, GEO. CARRINGTON, M.D., B.Sc. (Pub. Health) Edin., has been appointed Assistant Medical Officer of Health (Temporary) to the Port of Leith.

RICHARDSON, A., M.D. Brux., L.R.C.P. Edin., M.R.C.S., has been appointed an Honorary Medical Officer of the Port Augusta Hospital, South Australia.

WARD, A. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Christchurch Sanitary District and the Branch Workhouse of the Parish of St Giles, Camberwell.

WILLIAMS, G. R., L.R.C.P., L.M., L.R.C.S. Irel., has been appointed Medical Officer for the Seventh Sanitary District of the Depwade Union.

YOUNG, RICHD. W., M.R.C.S., L.S.A., has been appointed Government Medical Officer and Vaccinator for the Lower Clarence River District, New South Wales.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BERKSHIRE COUNTY COUNCIL.—Lecturer on "Hygiene." (Apply to Mr. Colbourn, Organising Secretary, 6, Russell-street, Reading.)

BRIGHTON THROAT AND EAR HOSPITAL, 23, Queen's road, Brighton.—Non-resident House Surgeon. Salary at the rate of £50 per annum.

CHELSEA HOSPITAL FOR WOMEN, S.W.—Clinical Assistant.

CHARING-CROSS HOSPITAL MEDICAL SCHOOL.—Lecturer on Organic Chemistry. Minimum remuneration £100 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Pathologist. Salary 100 guineas per annum. (Applications to the Secretary, 24, Finsbury-circus, E.C.)

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY, Wakefield.—Junior House Surgeon. Honorarium £40 per annum, with board, lodging, and washing.

COUNTY BOROUGH OF STOCKPORT.—Medical Officer of Health for the District of the Borough, and to the Infectious Diseases Hospital, and Surgeon to the Police Force, at a salary at the rate of £400 per annum. (Applications to the Town Clerk, Lord-street, Stockport.)

COVENTRY AND WARWICKSHIRE HOSPITAL.—Assistant to the House Surgeon, for six months. Honorarium £15, with board, residence, washing and attendance (exclusive of beer, wines and spirits.)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physicians.

HUDDERSFIELD INFIRMARY.—Honorary Physician.

INVERNESS DISTRICT BOARD OF LUNACY.—Medical Superintendent for the Inverness Asylum. (Applications to Mr. R. Davidson, Queensgate-chambers, Inverness.)

KENT AND CANTERBURY HOSPITAL.—Assistant House Surgeon. Salary £50 a year, with board and lodging.

KENT COUNTY LUNATIC ASYLUM, Barming-heath, near Maidstone.—Third Assistant Medical Officer. Salary £175 per annum, rising £5 per annum up to £200, with furnished quarters, attendance, gas, washing, garden produce and milk. (Applications to Mr. Howlett, 9, King-street, Maidstone.)

M. C. L., care of J. W. Vickers, 5, Nicholas-lane, E.C.—Qualified Medical Man, to proceed to Mexico as Medical Superintendent of a Mining Company. Salary £300 per annum.

POPLAR HOSPITAL FOR ACCIDENTS, Blackwall, E.—Senior House Surgeon. Salary £100 per annum, with board &c.

READING AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION. Assistant Medical Officer. Terms £70, in-door. (Applications to be made to R. M. B., Dr. Stansfield, 80, Southampton-street, Reading.)

ROYAL UNITED HOSPITAL, Bath.—House Surgeon for one year. Salary £60 per annum, with board, lodging and washing.

Births, Marriages and Deaths.

BIRTHS.

GLYN-GRIFFITH.—On Aug. 29th, at Allahabad, North-West Provinces, the wife of Dr. R. Glyn-Griffith, Senior Surgeon, E.I.R., of a son.

HEDGES.—On Sept. 26th, at 18, Lake-street, Leighton Buzzard, the wife of J. A. Hedges, M.R.C.S. &c., Medical Officer to Local Board, of a son.

JOHNSON.—On Sept. 25th, at Mickleton, Campden, Gloucestershire, the wife of James Bovell Johnson, M.D., of a daughter.

PRATT.—On Sept. 27th, at Weedon, Northamptonshire, the wife of W. Sutton Pratt, L.R.C.P. Lond., M.R.C.S., of a daughter.

SCOTT.—On Sept. 21st, at Heathfield, Bromley, Kent, the wife of John Scott, B.A., M.B., M.R.C.S., of a son.

MARRIAGES.

FINLAYSON—SELLICK.—On Sept. 22nd, at St. Andrew's, Gibraltar, Henry W. Finlayson, M.B., C.M., Surgeon, R.N., to Charlotte Elizabeth, only daughter of Stephen Sellick, Kensington.

KEYS-WELLS—LOWNDES.—On Sept. 21st, at Little Comberton, Dr. Ernest Neville Keys-Wells, of White Parish, near Salisbury, to Grace Eleanor, second daughter of the Rev. E. S. Lowndes, M.A., Rector.

MURPHY—LLEWELLYN.—On Sept. 22nd, at St. Stephen's Church, East Twickenham, Dr. H. Howard Murphy to Annie, daughter of the late Thomas Llewellyn, Esq.

TRANTER-CARPENTER—FROOM.—On Sept. 24th, at St. Mark's Hamilton, terrace, P. Tranter-Carpenter, M.R.C.S., &c., of Stann Creek, British Honduras, to Amelia (Lillie) Froom, fourth daughter of the late Alfred Froom, Esq., of Maida-vale, W.

DEATHS.

ANDREWS.—On Sept. 21st, Henry Charles Andrews, M.D., M.R.C.S., L.S.A., L.M., late of Addison-terrace, Notting-hill, London, aged 65. Friends will kindly accept this intimation.

COMPTON.—On Sept. 26th, at Pelham House, Poole, Francis Charles Compton, M.R.C.S., L.R.C.P., aged 38.

HAIME.—On Sept. 20th, at Barnsley, Yorkshire, W. C. Haime, L.R.C.P., L.R.C.S. Edin.

HESLOP.—On Sept. 21st, at 92, Windsor-road, Southport, Robert Heslop, L.R.C.S.E. and L.S.A., Consulting Surgeon to St. Mary's Hospital, Manchester, aged 68 years.

LONGSTAFF.—On Sept. 23rd, at his residence, Butterknowle, Wandsworth, George Dixon Longstaff, M.D., in his 94th year.

MACGOWAN.—On Sept. 15th, in London, Thomas Newall Macgowan, M.B., aged 22.

PRESTON.—On Sept. 24th, at Kidderminster, H. T. Preston, M.D. Aberd., C.M., M.R.C.S.

RICHARDS.—On Sept. 25th, the result of an accident, Robert Crout Richards, M.R.C.S.E., L.R.C.P.I., L.M., of Orchard House, Shotley Bridge, aged 40, son of Alfred Richards, Portreath, Cornwall.

RUSSELL.—On Sept. 27th, at Worthing, John Russell, Surgeon, aged 62, late of Newcastle-on-Tyne.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Sept. 29th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. in Shade.	Min. Temp.	Rainfall.	Remarks at 8.30 A.M.
Sept. 23	30·14	N.W.	56	55	96	66	55	..	Overcast
,, 24	29·88	W.	61	59	97	62	56	·09	Dull
,, 25	29·97	W.	55	53	104	66	48	..	Fine
,, 26	30·03	N.W.	56	54	100	68	53	..	Overcast
,, 27	29·89	S.W.	61	59	89	67	55	..	Cloudy
,, 28	29·71	S.W.	51	49	104	62	49	·24	Overcast
,, 29	29·81	W.	52	49	102	58	45	..	Fine

Medical Diary for the ensuing Week.

Monday, October 3.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

Tuesday, October 4.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

Wednesday, October 5.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Galabin, Dr. McAdam Eccles, Dr. Horrocks, Dr. Rutherfoord, Dr. Amand Routh, and Dr. Cullingworth.—Dr. Cullingworth: The Value of Abdominal Section in certain cases of Pelvic Peritonitis.

Thursday, October 6.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, October 7.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital).—8.30 P.M. Opening Address by the President (Mr. Swinford Edwards): Urinary Surgery of the Present Day contrasted with that of Twelve Years ago.

Saturday, October 8.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

Notes, Short Comments & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

NOTE-TAKING AND MEDICAL STUDY AND PRACTICE.

THE *Phonetic Journal* of the 24th ult., commenting on an article in our Students' Number entitled "Notes and Note-takers," says:—

"THE LANCET points out that many students know a little shorthand, and wisely recommends them to improve their shorthand for the purpose. But as regards those students who have no knowledge of shorthand, it remarks that they will speedily acquire an abbreviated form of longhand which will probably serve their purpose. We do not share the opinion. To acquire a serviceable method of abbreviated longhand is a long, laborious process, and the notes taken in it when acquired are usually slovenly and illegible, as must be the case when an attempt is made to follow a rapid speaker by means of longhand, however abbreviated, and even when all that is sought to be taken down is a sentence here and there. But the ordinary run of abbreviated longhand, that which the amateur note-taker develops himself, seldom represents a saving of more than 4 or 5 per cent. of the time that would be required to write in full longhand. On an emergency it breaks down entirely. The best advice to every medical student who does not know shorthand is that he should devote some of his time to mastering an art that eminent medical practitioners declare to have proved so valuable to them. With that knowledge they will be enabled to take notes with ease and comfort—notes that they will be able to read without hesitation whenever they desire to do so. With the other piece of practical advice in the article in THE LANCET—namely, that students should secure well-bound substantial note-books—we thoroughly concur. They should be well bound and substantial in order to be available for reference in future years. Stress is laid in THE LANCET article upon the importance of note-taking as a means of cultivating in student days certain habits that are conducive to success in later life. The educational value of the practice of note-taking is too often lost sight of; but, as THE LANCET writer points out, the student who takes notes regularly is likely to develop the habit of punctuality. Like the professional note-taker, who is rarely behind time, the student who takes notes systematically will make a point of being present at the commencement of a lecture. He will also attend with more regularity for fear of missing one lecture of a course, and perhaps having to make good the gap by a prolonged study of books. The practice of note-taking tends to strengthen the power of continuous attention and thus to develop a faculty of the greatest service in every walk of life. It also helps to promote thoroughness. The student who has acquired these qualities in his student days goes forth into the world with a mental equipment of useful habits that are as valuable to him as the knowledge he has gained. To take his notes comfortably, clearly, and so that they may be easily referred to and read in after years the student must have mastered shorthand, and the one defect that we notice in an otherwise admirable article is that this point is not emphasised so strongly as it deserves to be. The medical man who has made himself proficient as a phonographic note-taker in his early days gets so accustomed to rely upon shorthand that he instinctively uses it whenever he has need to make notes, and in his professional work he has abundant need to do so. Therefore it is with confidence that we urge upon all who are, or who propose to become, medical men to learn shorthand and to make it a daily companion of their studies."

Aqua Pura (Biggleswade) should consult an article which appeared in THE LANCET of Sept. 12th, 1891, page 628.

THE LIMPET'S ADHESIVE POWER.

Mr. J. Lawrence Hamilton, who has been continuing his experiments on the adhesive power of the limpet, informs us that he has found that whilst a force of 35lb. is required to remove a living limpet from the place to which it has affixed itself, 25lb. suffices to displace a limpet immediately after poisoning with corrosive sublimate, and that a force of 9½lb. will detach the limpet twenty-four hours after death. From the experiments which he has made he thinks he may, perhaps, be justified in concluding that while some portion of the adhesive power may or may not be due to atmospheric pressure, a very considerable amount, if not the whole, is dependent upon the power of the creature to throw out a very tenacious substance. In favour of the latter view is the definite evidence of the absence of a vacuum beneath the foot, or of any mechanism whereby such a vacuum might be produced—such, for instance, as is seen in the suckers of the tentacles of octopi &c., and the fact that the adhesion continues after the death of the animal.

Mr. R. V. Boyle.—We are not aware that any medical practitioner has devoted more attention to the ailments arising from bicycle riding than to those arising from any other cause. Any properly educated physician or surgeon would be able to treat such troubles.

Mr. D. T. Richards.—We think our correspondent would be well advised by delaying—for a time at least.

Mr. R. N. Ingle (Jersey) is thanked for his suggestion and appreciation.

HOSPITALS AND PRIVATE PRACTICE.

To the Editors of THE LANCET.

SIRS,—Much has been said and written about abuse of hospitals, but very little about the grievous abuse of private practice. When deductions are made for the hours consumed in hospital attendances, committee meetings and the various educational, public, social and semi-political engagements which make up the daily round of duty of a hospital physician or surgeon in London, the time at his disposal for seeing paying patients and thereby making a professional income is strictly limited. And yet most men in large practice are called upon to give a considerable portion of their time to seeing patients gratuitously. Many such patients are, it is true, medical men or those dependent upon them, or other worthy persons to whom it is at once a pleasure and a privilege to be of service; but a large number do not belong to this class, and would themselves be sorely puzzled to explain to their personal friends on what grounds they consider themselves entitled to receive medical advice for nothing.

Last week I received a letter from a gentleman asking me to see at home a young woman in whom he was "interested." I replied that I was about to resume hospital work and should be happy to see the young woman at the hospital. Upon this his wife sent the following touching appeal. I should perhaps state that, so far as I know, the only ground on which this lady could base her claim to her "favour" is that eleven years ago, at the request of her medical attendant, I performed an operation upon her for a very reduced fee, and that she subsequently paid me several professional visits, for which no honorarium was ever tendered.

"Sunday, Sept. 25th.

"DEAR MR. ——,—I am going to ask you a great favour; it is this. Would you mind the young woman my husband wrote to you about coming to see you in Harley-street, instead of going to either hospital? The fact is I am so nervous just now about infection, both for the girl (who is in my service) and the fear of her bringing any germ from an out-patient's department. She is a good girl, and I am most anxious to know your opinion about her. Once more asking forgiveness for troubling you, "I am, sincerely yours,

"—— ——."

Ought I to have succumbed? I did not; but answered that as the demands upon my gratuitous services were already almost unbearable, and as in order to see a patient gratuitously I should have to decline one who would pay, I regretted I was unable to accede to her request, adding that as regards the danger of infection neither she nor her maid would at the hospital encounter any greater risk than my wife and children were exposed to every time I attended hospital.

I am, Sirs, yours truly,

Sept. 26th, 1892. F.R.C.S.

Mr. F. P. Trench.—In the little calendar or register published by the Medical Council of British Columbia in May, 1892, it is stated that "during the year there shall be three regular meetings and three examinations held, beginning on the first Tuesday of May and September and the second Tuesday of January." The examination papers for May, 1892, are appended.

An Advocate for Registration of Midwives.—Our columns are intended for members of the profession. Our correspondent's letter is not without prejudice and admits of refutation.

G. V. (Kidderminster).—We regret that we must decline to reply to our correspondent's first question. With reference to the second he should address the publisher.

M.—The paper shall have early attention.

PUBLIC HEALTH AND LEGAL RESTRICTIONS.

To the Editors of THE LANCET.

SIRS,—You will much oblige me by answering the following questions through the medium of your valuable journal. In cases of infectious disease—(1) Is there any law to prevent the father of a patient, or the mother, going to work, supposing the father to work at a laundry or something of that kind? (2) Supposing the mother to be a midwife, can the medical officer of health restrain her from attending cases till after a certain time? (3) Can the children be restrained from playing or otherwise mixing with other children?

I am, Sirs, yours faithfully,

Grays, Sept. 21st, 1892. SIDNEY H. SNELL, M.D.

*** There is no law directly covering any one of the three questions raised. The only assistance which might be looked for from the law is provided by Section 126 of the Public Health Act (1875), by which it is enacted that "any person who gives, lends, sells, transmits or exposes, without previous disinfection, any bedding, clothing, rags or other things which have been exposed to infection from any such disorder shall be liable to a penalty not exceeding five pounds." This provision includes clothing exposed to infection; but we doubt whether the clothing worn by persons attendant on, or otherwise coming in contact with, the sick would be included in its meaning.—ED. L.

THERE are many ways of procuring pure water besides that of filtering. M. Babes has proposed a method which consists in precipitating the minute organic ingredients contained in the water by shaking up the latter with iron filings, while a current of air is passed through the liquid. The novelty of this method lies in the use of the iron filings, which, in contact with the air, undergo a certain oxidation; but the general principle, as Dr. De Santi demonstrated before the Société Biologique of Paris, has long been known and practised, particularly in localities where the water is impure and unwholesome. In Southern Algeria and in Cochin-China the natives add to the suspected water a trace of alum; then they shake it, let it stand, and pour off the liquid portion. In the case of iron filings, however, probably the oxide formed by contact with air effects in addition oxidation of the organic matter.

Advertising Handbills.—Some of the bills &c. are twelve months old. We should have more recent evidence.

New Subscriber.—We think Ellis's plates are the best for the purpose.

A TROUBLESOME SKIN AFFECTION.

To the Editors of THE LANCET.

SIRS,—I should be very glad if any of my brother practitioners who have met with a similar case to the following, and have treated it successfully, would give me the benefit of their experience.

A young married lady, twenty-six years of age, is troubled with severe, intermittent attacks of what I believe to be urticaria, which is developed whenever she goes out into the air, and more especially if there is much sunshine; the rash makes its appearance on all exposed parts—viz., face, neck and hands—when severe spreading over the chest and occasionally on other covered parts of the body. It is accompanied by intolerable itching, lasting from half an hour to two hours, and generally leaves severe headache after each attack. The rash eventually bears the characters of an ordinary attack of urticaria, following poisoning by mushrooms &c., and when seen for the first time would be put down to this cause. Constitutionally, she enjoys fairly good health, suffers at times from slight dyspepsia, is perfectly regular, and of constant habits. I have treated her, with especial reference to her digestive organs, with alkalies, bismuth, arsenic, liquor potassæ, bromide of ammonia, citrate of caffeine and nux vomica, but with virtually no real relief. Change of air seems temporarily beneficial only. Any suggestions will be most gladly received by Yours truly,

Sept. 26th, 1892. PERPLEXED.

Justices should, if satisfied with his own diagnosis of the case, press for payment. His claim is not to be decided by the different opinion of the medical officer of health. The time which had elapsed does not affect the legality of the claim.

Dr. Max Defrenne (Antwerp) is thanked.

SOUTH AFRICA.

To the Editors of THE LANCET.

SIRS,—Can any of your readers kindly inform me what supply of drugs, instruments &c. it is necessary for a surgeon about to settle in South Africa to take with him? I am, Sirs, yours faithfully,

September, 1892. W. B.

To the Editors of THE LANCET.

SIRS,—Can any of your readers who are well acquainted with the climatology of South Africa inform me of the districts best suited to a patient suffering from bronchial asthma?

I am, Sirs, yours faithfully,

Sept. 27th, 1892. MEDICUS.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Alderson, London; Dr. Armstrong, Newcastle; Mr. Wm. Anderson, London; Dr. F. F. Anson, Whitehaven; Mr. Bond, London; Messrs. Burgoyne and Co., London; Dr. Bagshawe, St. Leonards; Messrs. Battle and Co., Paris; Mr. Brown, London; M. Berthier, Paris; Mr. R. Fitzroy Benham, London; Dr. G. C. Bright, Switzerland; Mr. T. B. Browne, London; Mr. W. W. Brydon, London; Dr. W. H. Broadbent; Dr. John Boyd, Llanamman; Dr. Barnett, Burton-on-Trent; Messrs. Cassell and Co., London; Mr. R. B. Carter, London; Messrs. Clarke, Son and Platt, London; Dr. H. Cooke, Bombay; Mr. Craven, Argentine Republic; Mr. Cowell, London; Dr. Corfield, London; Mrs. Douglas, Piccadilly; Professor D. Di Bona, Sicily; Messrs. Dawson and Son, London; Mr. Deeping, Leicester; Mr. Diver, Jarrow-on-Tyne; Dr. J. Drummond, Malvern; Messrs. Eason and Son, Cork; Mr. Fleming, London; Dr. Gemmell, Glasgow; Mr. Griffin, London; Mr. Godfrey, Northampton; Dr. A. H. Haines, Bristol; Mr. W. R. Huggard, Switzerland; Mr. Heywood, Manchester; Dr. Hitchcock, Wilts; Mr. Hudson, Edinburgh; Mr. Hughes, Kingsland; Mr. S. T. Hutchinson, Cardiganshire; Mr. Jackson, London; Dr. Macnaughton Jones, London; Mr. Kapparjdaki, Athens; Messrs. Keen, Robinson and Co., London; Mr. Kerr, Dundee; Mr. Lipton, London; Dr. A. P. Luff; Mr. W. A. Lane, London; Mr. Livingston, Inverness; Dr. P. Manson, London; Dr. J. L. Maxwell, Highbury-park; Dr. Stevenson MacAdam, Edinburgh; M. Henri Monod, Paris; Messrs. Maythorn and Son, Biggleswade; Mr. C. Mersier, Catford; Dr. Moritz, Manchester; Dr. Mackay, Spain; Mr. Moss, London; Messrs. Oliver and Boyd, Edinburgh; Messrs. Oppenheimer, Son and Co., London; Dr. R. Pye-Smith; Mr. Pentland, Edinburgh; Messrs. Parkins and Gotto, London; Mr. Pancoast, Camden, N.J.; Messrs. Perigeux and Co., London; Major-General Phelps, Edgbaston; Messrs. Reynolds and Branson, Leeds; Dr. R. R. Rentoul, Liverpool; Mr. J. P. Ryan, Melbourne; Mr. H. J. Rice, Cheshire; Mr. T. Ryan, London; Dr. F. Ransom, Cambridge; Mr. E. Skeat, Brighton; Messrs. Street and Co., London; Dr. Soldby, Grimsby; Messrs. Southwood, Smith and Co., London; Mr. G. V. Shann, Kidderminster; Messrs. Street Bros., London; Mr. Seymour, Coventry; Dr. Brown Séquard, Paris; Mr. H. Taylor, Brentford; Mr. J. W. Taylor, Birmingham; Mr. W. Bolton Thompson, Luton; Dr. F. P. Trench, Glasgow; Mr. John Tweedy, London; Dr. Tuckey, London; Messrs. J. and T. Usher, Bristol; Dr. W. H. White, London; Dr. Wiedle, Birmingham; Mr. Williams, Cardiff; Mr. Warner, Sheffield; Mr. Ward, London; Mr. Wilson, Doncaster; Mr. Wand, Leicester; Mr. J. M. Wills, Bootle; Mr. G. S. Wilson, Oxford; Messrs. Wyleys, Coventry; Messrs. Whitworth and Stuart, Manchester; A. B., Dorset; A. B. C., London; Alpha, London; A. G., London; Cortland Wagon Co., London; Cambrian, London; F. P., London; General Apothecaries' Co., London; Gamma, London; Gresham College, London; Iota, London; Johnson, London Lex, London; M.R.C.S.E., Bournemouth; Maltine Co., Bloomsbury; P. H. D., Cheshire; Public Health, London; Secretary, Denbighshire Infirmary; Secretary, Brighton Throat and Ear Hospital; Secretary, Royal United Hospital, Bath; Secretary, Eye and Ear Infirmary, Edinburgh; Williams, St. David's; Zeta, London.

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NEWSPAPERS.—*Admiralty and Horse Guards Gazette, Leeds Mercury, Yorkshire Post, Electrical Engineer, Birmingham Argus, Bristol Mercury, Liverpool Daily Post, Eastern Morning News, Daily Telegraph, Hartlepool Guardian, Hants Gazette, North British Daily Mail, Kenilworth Advertiser, Bradford Observer, Dundee Advertiser, Cork Constitution, Windsor and Eton Gazette, West Middlesex Standard, Local Government Chronicle, Weekly Free Press and Aberdeen Herald, Mining Journal, Hertfordshire Mercury, Reading Mercury, Windsor and Eton Express, Surrey Advertiser, Architect, City Press, Insurance Record, Electrical Review, Australian Medical Gazette, Builder, Le Courrier de la Presse, Citizen, Pearson's Weekly, Law Journal, Australian Medical Journal, West Middlesex Advertiser, Pioneer Mail, Sala's Journal, Times of India, Kidderminster Shuttle, Chicago News, Local Government Journal, Runcorn Guardian, Manchester Evening News, Sunday Times, County Council Times, Whitehaven News, Le Temps (Paris), Western Morning News, &c.*, have been received.

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